#### PART No: 03230RW FORD RANGER PX/MAZDA BT50 UR XBAR

#### INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT PLACE THESE INSTRUCTIONS IN THE VEHICLE'S GLOVEBOX AFTER INSTALLATION IS COMPLETED



**Installation Time: Approx 60 Mins** 

#### **Towbar Installation Instructions**

#### FORD RANGER PX/MAZDA BT50 UR XBAR

Part Number 03230RW

Towbar capacity:

Max Towing Braked 3500kg
Max Towing Unbraked 750kg
Max Static Ball Load 350kg

#### **RECOVERY RATING:**

## CENTRE RECOVERY HOOK

CENTRE RECOVERY POINT LOADING MUST NOT EXCEED 8000kg. DESIGNED FOR USE WITH A SNATCH STRAP NOT EXCEEDING 8000kg MBS (MINIMUM BREAKING STRENGTH)

8000kg

# SIDE RECOVERY HOOK (SINGLE)

SIDE RECOVERY POINT LOADING MUST NOT EXCEED 4000kg MBS (MINIMUM BREAKING STRENGTH)

4000kg



Phone 1800 812 017 Email info@haymanreese.com.au





Rev: E Page 1 Issue Date: 16-03-2022

#### **PART No: 03230RW**

#### FORD RANGER PX/MAZDA BT50 UR XBAR

#### INSTALLATION INSTRUCTIONS

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#### **Warning:**

- 1. Do not, drill, cut, weld or otherwise modify the towbar.
- If you are using electric welding on a motor vehicle, <u>always</u> check that the vehicle is not equipped with electronic
  engine or instrument management equipment. Failure to do so could <u>destroy</u> any on board computers. If in doubt,
  check with the vehicle's manufacturer.
- 3. If TBM is used in inverted position tow ball may make contact with rear tailgate when lowered, which could cause damage.

#### **General:**

- 1. Ensure all hardware items have been included refer to assembly diagram.
- 2. It is recommended that the instructions are read through and completely understood before making any attempt to fit this product.
- 3. Be wary of any changes to vehicle designs or other accessories that may conflict with the installation of this product.
- 4. Before drilling ensure that the area is clear of fuel, electrical & other components.
- 5. All holes drilled into the body panels shall have all burrs & swarf removed then coated with a suitable rust preventative paint.
- 6. The high tensile fasteners supplied with this product were used to achieve the specified rating. If replacement is required ensure that fasteners of the same rating & quality are used. Contact an authorised **Hayman Reese** dealer if further information is required.
- 7. Ensure that all hardware is fastened to torque list below check fasteners on regular basis.
- 8. Towbar load rating sticker provided with this product shall be conspicuously located on inside rear end of the driver's door. (See diagram below).
- Hayman Reese recommends that you check your tow ball to ensure that it complies with the Australian standards AS 4177.2.
- 10. **PLEASE NOTE**: It is advised to remove your LUG or TBM when not actually towing so as to produce a clear view of the vehicles registration plate if obscured, and to also provide maximum available departure angle.

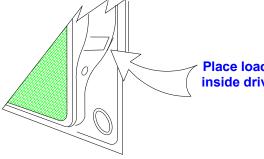
#### Tow bar Maintenance and Care.

Hayman Reese recommends that bolt torque's, as listed below, are routinely and regularly inspected and checked for correct tension. Replace any worn or defective parts.

We recommended to remove Tow Ball Mounts (TBM's, tongues or lugs) when not being used for any considerable length of time.

So as to avoid injury, when not towing it is suggested that the tongue, Pull Pin and R-clip are removed then stored in a safe, clean and dry place, away from excessive moisture.

Hitch Pull Pins and spring "R" clips are regularly checked for proper installation. Replace any worn or defective parts.



Place load rating sticker inside driver's door here

FOR TOWING PURPOSES ONLY

For towing capacity details please refer to vehicle owner's manual or to the manufacturer. Overloading can void your warranties.

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x-bar.com.au XBAR
BY HAYMAN REESE

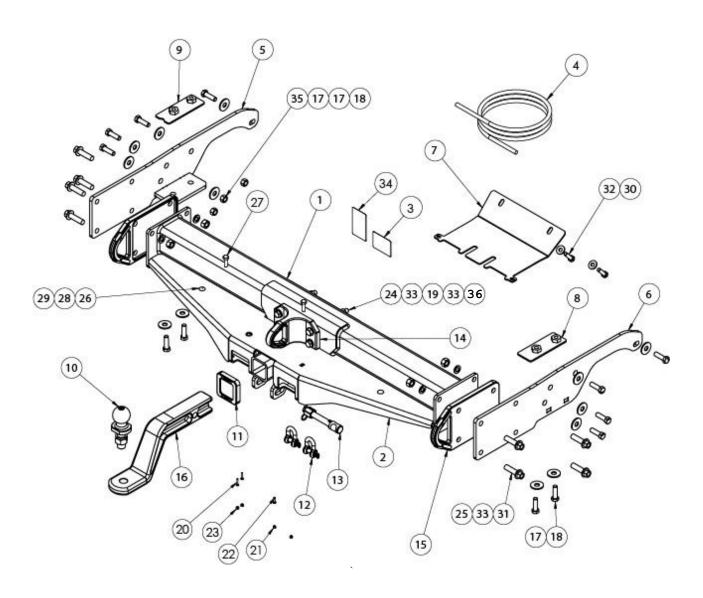
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# **PART No: 03230RW**

#### FORD RANGER PX/MAZDA BT50 UR XBAR

## INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT PLACE THESE INSTRUCTIONS IN THE VEHICLE'S GLOVEBOX AFTER INSTALLATION IS COMPLETED





#### **PART No: 03230RW**

#### FORD RANGER PX/MAZDA BT50 UR XBAR

## **INSTALLATION INSTRUCTIONS**

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT PLACE THESE INSTRUCTIONS IN THE VEHICLE'S GLOVEBOX AFTER INSTALLATION IS COMPLETED

ITEM	DESCRIPTION	QTY
1	XBAR WELDED ASSEMBLY	1
2	BOLT ON PLATE - MODEL A	1
3	ACRYLIC COMPLIANCE LABEL	1
4	WIRING LOOM	1
5	SIDE ARM ASSY LH	1
6	SIDE ARM ASSY RH	1
7	BASH PLATE	1
8	NUT PLATE RH T6	1
9	NUT PLATE LH T6	1
10	TOWBALL 50MM FLAT CHROME 3500KG HR	1
11	HITCH BOX COLLAR COVER	1
12	"D" SHACKLE 10mm	2
13	ANTI-RATTLE PULL PIN ASSY GOLD	1
14	FORGED CENTRE RECOVERY MOUNT	1
15	FORGED SIDE RECOVERY PLATES	2
16	3.5t FORGED TBM EXTENDED DROP	1
17	WASHER FT M12 x 37 x 3mm	14
18	SET SCREW M12-1.75x40 GR10.9	12
19	SPACER TUBE 90MM 16X1.6	4
20	SCREW PAN HD M3 X 20 X 0.7P G4.6	2
21	NUT NYLON LOCK HEX HD M4X0.7P G8	2
22	SCREW PAN HD M4 X 16 X 0.7P G4.6	2
23	NUT NYLON LOCK HEX HD M3X0.7P G8	2
24	SCR-HEX-ISO4014-10.9-WS18-M12X150	4
25	NUT-HEX-ISO4032-10-WS21-M14	8
26	BOLT COACH M8 X 20 X 1.25 GR4.6 BLACK	4
27	SET SCREW M8 - 1.25 x 25mm GR 8.8 Z/P	2
28	WASHER PLAIN M8 X 22 X 3	8
29	NUT HEX HD M8 X 1.25P G8	6
30	WSHR FT M10 x 25.4 x 3mm BLK XYLAN	2
31	BOLT HEX FLANGE HD M14-2.0x50mm GR10.9	8
32	BOLT M10-1.25x35mm Gr8.8 BLK XYLAN	2
33	WSHR FT M12 x 28 x 3mm BLK XYLAN	16
34	ACRYLIC LOAD RATING LABEL	1
35	NUT HEX HD M12 X 1.75P G8	4
36	NUT HEX NYLON M12 X 1.75P PC10 BLK ZiNi	4





#### **PART No: 03230RW**

#### FORD RANGER PX/MAZDA BT50 UR XBAR

#### INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT PLACE THESE INSTRUCTIONS IN THE VEHICLE'S GLOVEBOX AFTER INSTALLATION IS COMPLETED

- 1. Lower spare wheel to allow better access for fitment
- 2. Insert nut plate into the LH side of the chassis rail and align with the holes on underside of rail.

Repeat for opposite side.

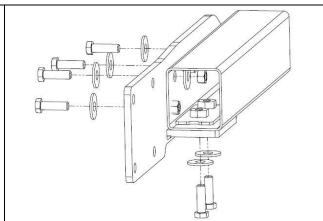
 Loosely secure LH side arm to chassis rail via 4 x M12 bolts on the outboard side of chassis rail and 2 x M12 bolts on underside of chassis, complete with 1 x M12 washer per bolt (one bolt requires extra washer and nut on inside of chassis).

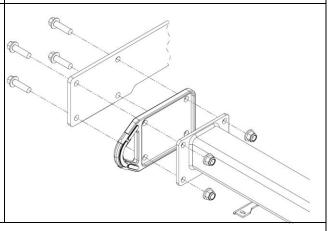


4. Using two people, lift towbar up to side arms ensuring to sandwich red recovery side plate between side arms and cross tube.

Note: Red recovery side plates must have recess facing inwards.

Loosely secure towbar to side arms with  $4 \times M14$  bolts per side complete with  $1 \times M14$  and  $1 \times M14$  nut per bolt.





5. Refer to sequence A, B, C, and D over page for final assembly instructions.

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#### **PART No: 03230RW**

#### FORD RANGER PX/MAZDA BT50 UR XBAR

#### INSTALLATION INSTRUCTIONS

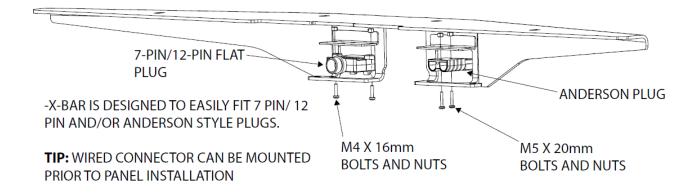
PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT PLACE THESE INSTRUCTIONS IN THE VEHICLE'S GLOVEBOX AFTER INSTALLATION IS COMPLETED

6. Tighten all bolts to the torques listed below:

M8: 22 N.m; M10: 48 N.m; M12: 140 N.m; M14: 175 N.m

**IMPORTANT:** Ensure all bolts are secured to correct torques using a calibrated torque wrench. Tighten side arms to chassis rail first in an even pattern/sequence. Repeat for centre section to side arms and finally torque all other fasteners.

#### A. FIT PLUGS TO PLUG BRACKETS





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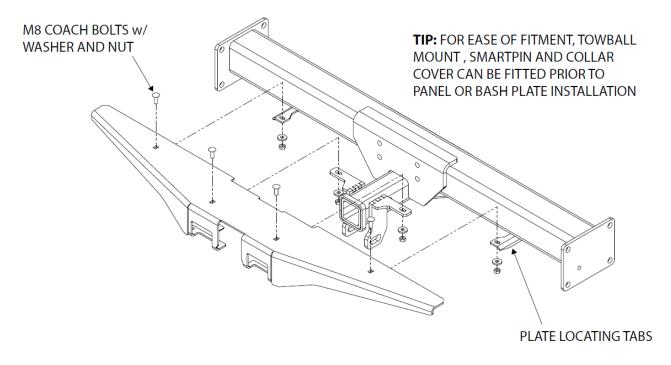
#### **PART No: 03230RW**

#### FORD RANGER PX/MAZDA BT50 UR XBAR

#### INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT PLACE THESE INSTRUCTIONS IN THE VEHICLE'S GLOVEBOX AFTER INSTALLATION IS COMPLETED

#### **B. BOLT COVER PLATE TO TOWBAR**



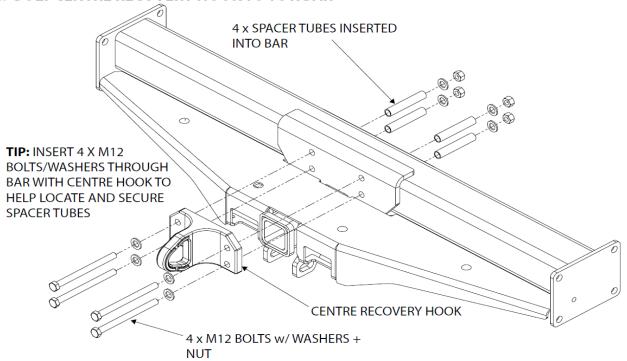


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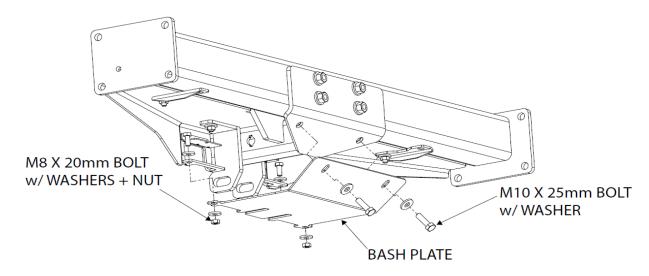
#### FORD RANGER PX/MAZDA BT50 UR XBAR

# **INSTALLATION INSTRUCTIONS**

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT PLACE THESE INSTRUCTIONS IN THE VEHICLE'S GLOVEBOX AFTER INSTALLATION IS COMPLETED C. BOLT CENTRE RECOVERY HOOK TO TOWBAR



#### D. BOLT BASH PLATE TO TOWBAR





## PART No: 101426-WL FORD RANGER PXII, MAZDA BT-50 GT

## INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT

# **Wiring Loom Installation Instructions**

# FORD RANGER PXII, MAZDA BT-50 GT

Part No: 101426-WL

Tail Harness Length Required: 1800mm ECU Required: 04835

Power Harness: 04825 (supplied)

Wiring Loom Installation Time: Approx. 20 minutes



It is not possible to over-ride the Factory RPA. It can however be disabled through a switch on the vehicle dash.

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**PART No: 101426-WL** 

FORD RANGER PXII, MAZDA BT-50 GT

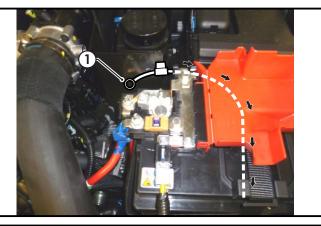
## INSTALLATION INSTRUCTIONS

#### PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT

Note: All steps are suitable for both vehicles. Ford Ranger shown for illustration purposes.

 In the engine bay, route the power harness (1) down towards the LHS of the vehicle under carriage. Do not connect the power harness ring terminal to the battery until the end of fitment.

Note: When routing any harnesses underneath the vehicle, ensure to avoid all moving parts, sources of heat and sharp objects.



2. From underneath the vehicle, route the power harness (1) along the LHS of the chassis rail towards the rear of the vehicle. Ensure that the power harness is secured with cable ties (not supplied).

Note: When routing any harnesses underneath the vehicle, ensure to avoid all moving parts, sources of heat and sharp objects.



3. On the LHS rear under carriage, locate and disconnect the 6-way tail light connectors (1) and connect the 6-way trailer patch (P/No: 101426-WL)(2) in between.



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#### **PART No: 101426-WL**

#### FORD RANGER PXII, MAZDA BT-50 GT

# **INSTALLATION INSTRUCTIONS**

#### PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT

- Connect the power harness 1-way male connector
   to the power harness 1-way female connector
   (2).
- **5.** Route the trailer patch (3) along the rear of the vehicle across to the RHS tail light connectors.



6. On the RHS of the rear under carriage, disconnect the 6-way tail light connectors (1) and connect the 6-way trailer patch connectors (2) in between.



- Mount the tail harness socket (1) to the towbar mounting bracket using M4 fasteners (not supplied).
- 8. Route the tail harness (tail length 1800mm)(2) along the towbar, towards the trailer patch blue connector.



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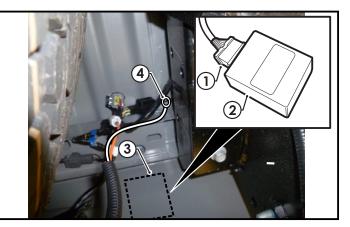
#### **PART No: 101426-WL**

#### FORD RANGER PXII, MAZDA BT-50 GT

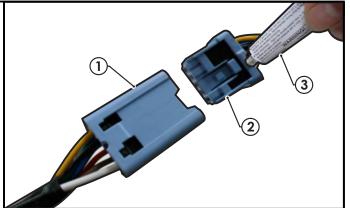
## **INSTALLATION INSTRUCTIONS**

#### PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT

- **9.** Connect the trailer patch ECU connector (1) to the ECU (2).
- 10. Using a cleaning wipe (not supplied) clean the area on the vehicle rear interior sheet metal (3). Remove the ECU backing tape and secure the ECU (2) onto the vehicle. Ensure the ECU is mounted pointing downwards.
- **11.** Secure the trailer patch ground ring terminal (4) to a suitable location on the vehicle chassis rail using a tek screw (not supplied).



- **12.** Connect the tail harness 8-way connector (1) to the trailer patch 8-way mating connector (2).
- **13.** Waterproof the trailer patch 8-way connector (1) and the tail harness 8-way male connector (2) using silicone or grease (3).



- **14.** In the engine bay, secure the power harness ring terminal to the battery positive terminal.
- **15.** Test the trailer wiring harness function using a light board or multi-meter.
- **16.** Secure all harnesses using cable ties (not supplied).
- **17.** Re-fit all removed parts and secure all fasteners, ensuring there are no squeaks or rattles.
- **18.** Place the fitting instructions in the glove box after fitment.

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# FITTING INSTRUCTIONS Smart Pin (55070BL)

- These fitting instructions are supplied to ensure understanding of how the SMART PIN should be fitted and used correctly.
- Once installed, we recommend <u>ALL</u> instructions are kept and placed in the vehicle glove box.

NOTE: Routine maintenance and inspection of the towbar & SMART PIN is required. Regularly inspect for wear and check the tightness of the SMART PIN NUT. Follow instructions below to retighten the nut when necessary.

\*Do not tow with your vehicle if the R CLIP or the SMART PIN NUT is loose or missing. Replacement parts are available from your Hayman Reese Distributor.

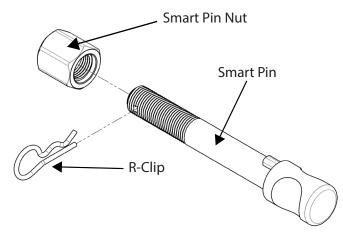
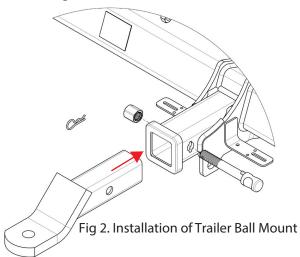
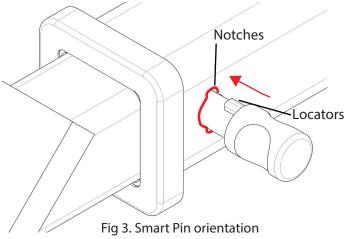


Fig 1. Smart Pin assembly

STEP 1

Insert Trailer Ball Mount (TBM) into towbar HITCHBOX, aligning hole in TBM SHANK with hole in HITCHBOX (Fig. 2).





STEP 2

Insert SMART PIN through hole in HITCHBOX and hole in TBM SHANK; ensure the LOCATORS are inserted into the NOTCHES in the HITCHBOX (Fig. 3).

STEP 3

Screw SMART PIN NUT onto SMART PIN; tighten SMART PIN NUT until finger tight, ensuring TBM is restrained from movement.

STEP 4

Tighten SMART PIN NUT by turning nut a further 1/8th of a turn in the clockwise direction using a 24mm spanner (Fig 4).



Install SMART PIN R CLIP through the hole on the SMART PIN (Fig. 1).

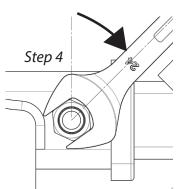


Fig 4. Tightening of Smart Pin Nut

