Fitting Instructions for
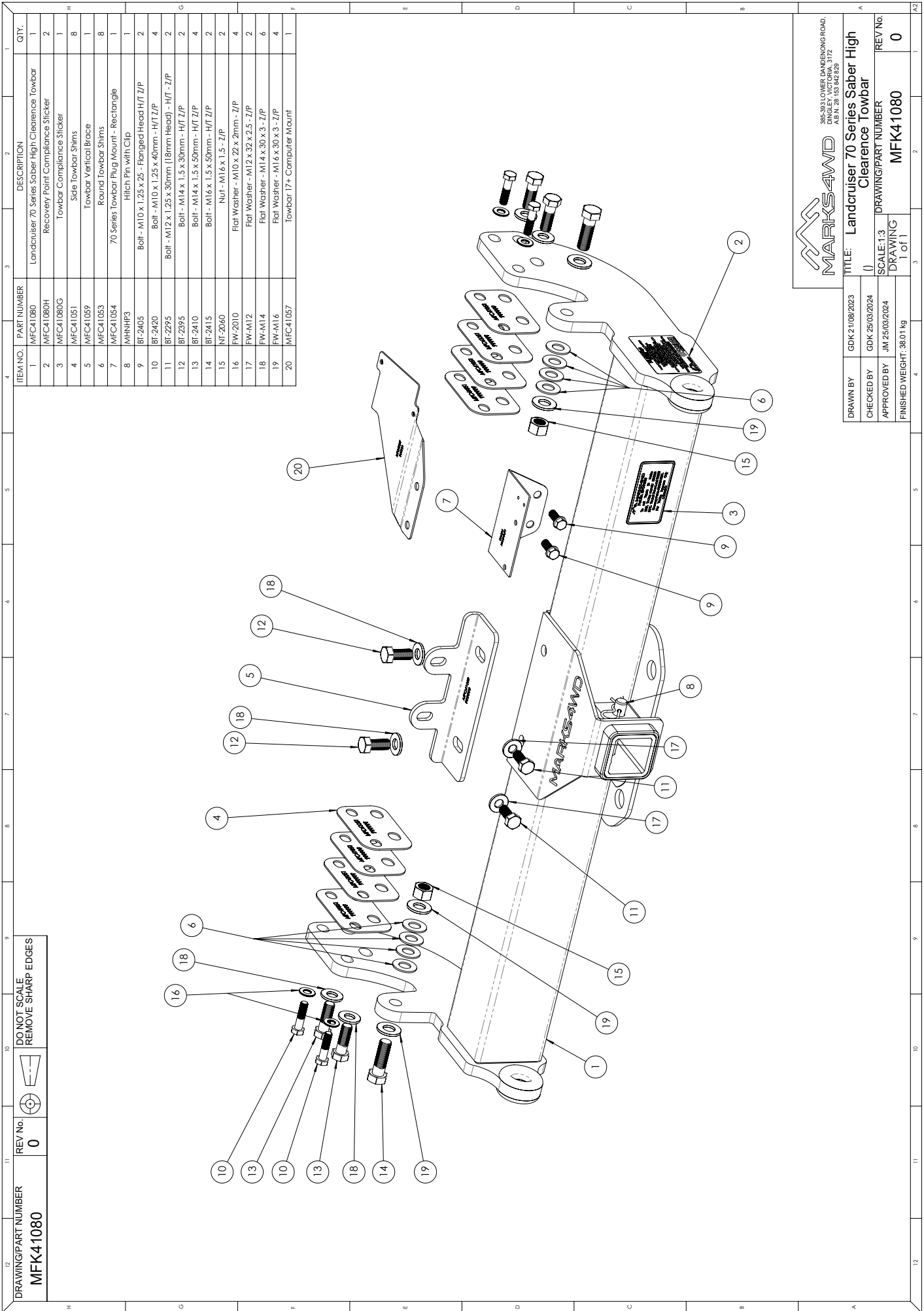# MFK41080
VDJ79 High Clearance Recovery Towbar

Important Information

This instruction booklet can be used standalone for the above stated conversion but we would also recommend having a workshop manual for your vehicle and for the engine/transmission you are installing to cover any factory torque / installation settings to complete the installation.

The instruction booklet describes the required modifications (if any) and installation process in order for our kit to fit and work properly. These instructions **make no assumption** on whether additional changes need to be considered or made. It is highly possible that other aspects of your vehicle and/or third party products, eg. Engine, transmission etc. will have an impact on all that is required for you to achieve your desired outcome.

Marks 4WD Adaptors do not and cannot take responsibility for knowing everything that may impact on your conversion. Before beginning any work, thoroughly work through the sequence of changes, work and potential impact of your conversion. You must ensure you completely understand all the factors that may impact on achieving your desired results.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	MFC41080	Landcruiser 70 Series Saber High Clearence Towbar	1
2	MFC41080H	Recovery Point Compliance Sticker	2
3	MFC41080G	Towbar Compliance Sticker	1
4	MFC41051	Side Towbar Shims	8
5	MFC41059	Towbar Vertical Brace	1
6	MFC41053	Round Towbar Shims	8
7	MFC41054	70 Series Towbar Plug Mount - Rectangle	1
8	MHNHP3	Hitch Pin with Clip	1
9	BT-2405	Bolt - M10 x 1.25 x 25 - Flanged Head H/T Z/P	2
10	BT-2420	Bolt - M10 x 1.25 x 40mm - H/T Z/P	4
11	BT-2295	Bolt - M12 x 1.25 x 30mm (18mm Head) - H/T - Z/P	2
12	BT-2295	Bolt - M14 x 1.5 x 30mm - H/T Z/P	2
13	BT-2410	Bolt - M14 x 1.5 x 50mm - H/T Z/P	4
14	BT-2415	Bolt - M16 x 1.5 x 50mm - H/T Z/P	2
15	NT-2060	Nut - M16 x 1.5 - Z/P	2
16	FW-2010	Flat Washer - M10 x 22 x 2mm - Z/P	4
17	FW-M12	Flat Washer - M12 x 32 x 2.5 - Z/P	2
18	FW-M14	Flat Washer - M14 x 30 x 3 - Z/P	6
19	FW-M16	Flat Washer - M16 x 30 x 3 - Z/P	4
20	MFC41057	Towbar 17+ Computer Mount	1

DO NOT SCALE
REMOVE SHARP EDGES

DRAWING/PART NUMBER
MFK41080

REV No.
0

TITLE: Landcruiser 70 Series Saber High Clearence Towbar

DRAWING/PART NUMBER
MFK41080

REV No.
0

385-393 LOWER DANDENONG ROAD,
DINGLEY, VICTORIA 3172
A.B.N. 28 153 842 829

DRAWN BY	GDK 21/08/2023
CHECKED BY	GDK 25/03/2024
APPROVED BY	JM 25/03/2024
FINISHED WEIGHT: 38.01 kg	

SCALE:1:3
()

DRAWING
1 of 1

Step 1 Prepare the vehicle & chassis for installation

Disconnect the negative battery post terminal.
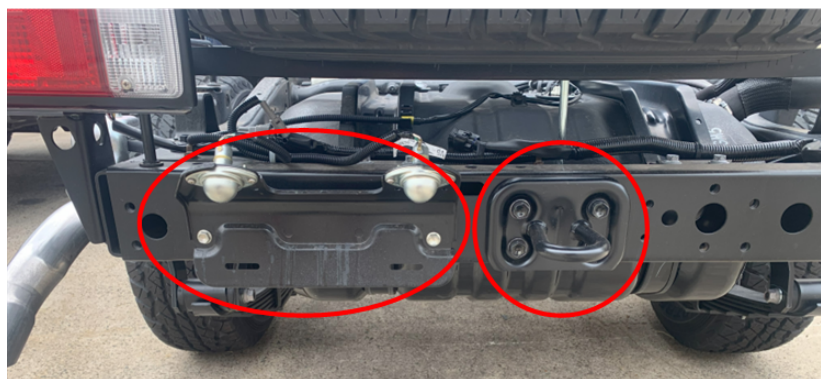Remove the number plate frame and hook if installed. *See image 1.1*
Clear weld spatter in the tray mount area with a cold chisel if required. *See image 1.3 & image 1.4*
Run the M10 X 1.25 X 40, M14 X 1.5 X 50 & (M16 x 1.5 x 50 Single Cab ONLY) bolts through all chassis weld nuts. You may require running a thread tap through first to clear the thread of paint or foreign matter. Remove all bolts.

Note: For ease of fitment, remove the 4 x M6 flanged nuts from exhaust brackets. This will allow additional fitment clearance. See image 1.2
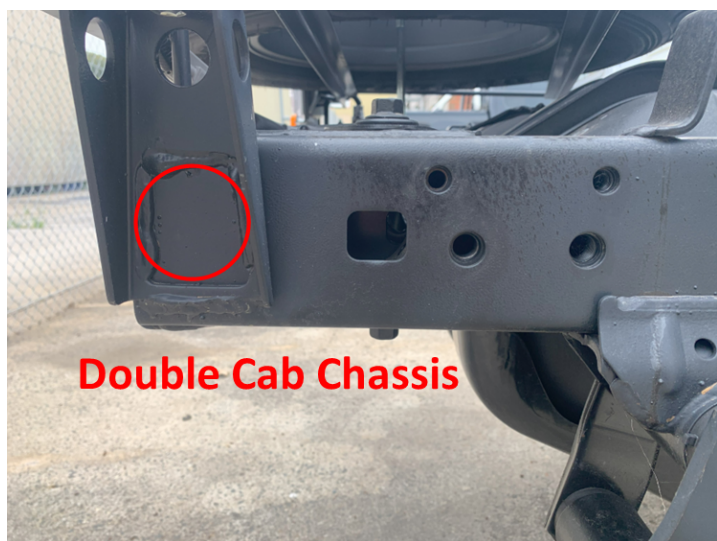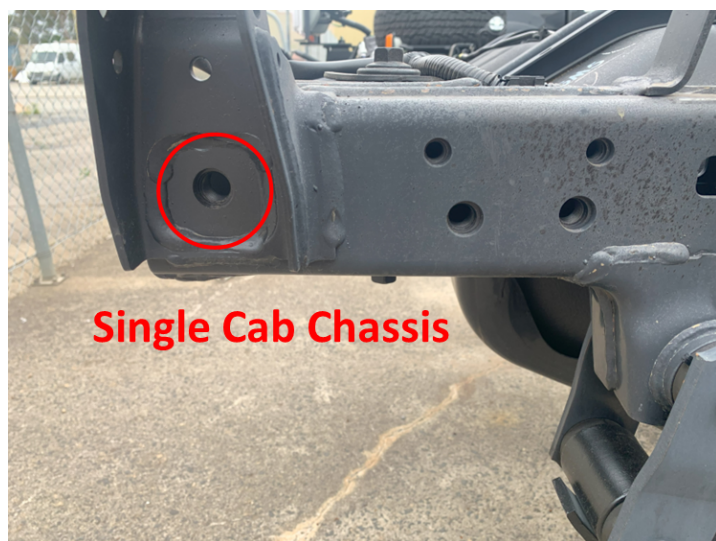

Image 1.1 Number plate frame and hook if installed

Image 1.2 Four M6 Flanged Nuts

Image 1.3 Double Cab Chassis

Image 1.4 Single Cab Chassis

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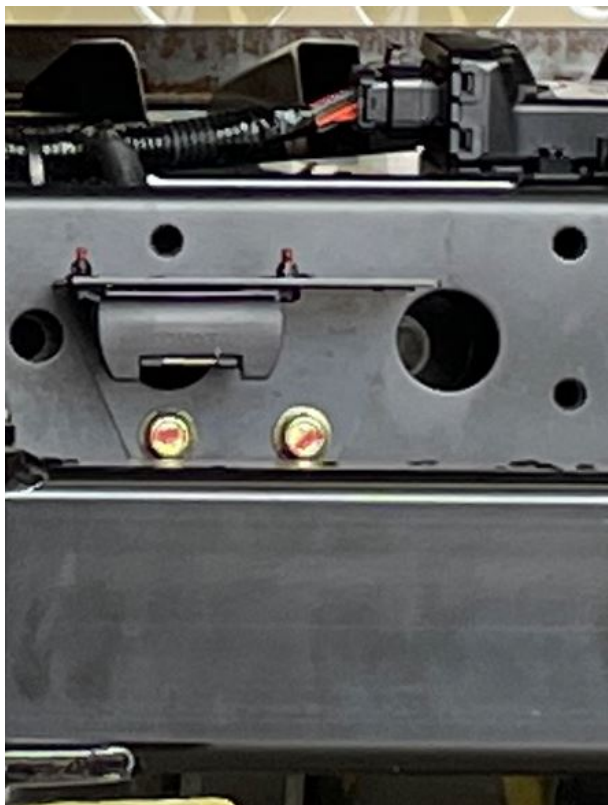
Step 2 Trailer Plug Mount

This trailer plug mount suits a 7-Pin Flat Trailer Harness Socket.

Install the supplied trailer plug mount to the chassis aligning the hole in the mount with the hole in rear chassis and aligning the two bolt holes with the corrosponding threaded holes in the chassis.

Then use the 2 x M10 x 1.25 x 30 bolts. **Torque to 26Nm. See image 2.1**

It can be installed after the towbar, but it is much easier now.

The 2 small holes found on the right side of the trailer plug mount are for mounting an Anderson plug if required. **See image 2.2**

Image 2.1 Trailer Plug Mount

Image 2.2 Trailer Plug Mount 1

Step 3 Calculate Shims Required

Caution: The towbar is heavy, use a second person or a lifting apparatus to support the towbar.

Support the towbar underneath the centre section.
Position the towbar to the vehicle with RHS endplate contacting vehicle chassis and loosely secure with 2x M14 X 1.5 X 50 bolts and 2x washers each side. Lightly tighten RHS bolts.
This will indicate the total gap of the towbar to vehicle chassis. **DO NOT TORQUE.**

Important: Use caution until towbar is secured.

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Step 4 Inserting Side Shims

Important: Shims are supplied to fill any gap between towbar and vehicle due to chassis build variation. Install the required number of shims, ensuring the same number each side.

Gauge the number of shims to be used by grouping an even number of shims between the LHS endplate of the towbar and chassis. Then equally divide the shims for each side of towbar. Secure in place with one M10 X 1.25 X 40 bolt and M10 Washer through upper forward hole.

Note: Total thickness of shim stack must be the same on each side.

Align shims with holes by temporarily removing the two M14 X 1.5 X 50 bolts to rotate the shim stack into position (one side at a time), centralising the towbar to the vehicle chassis.
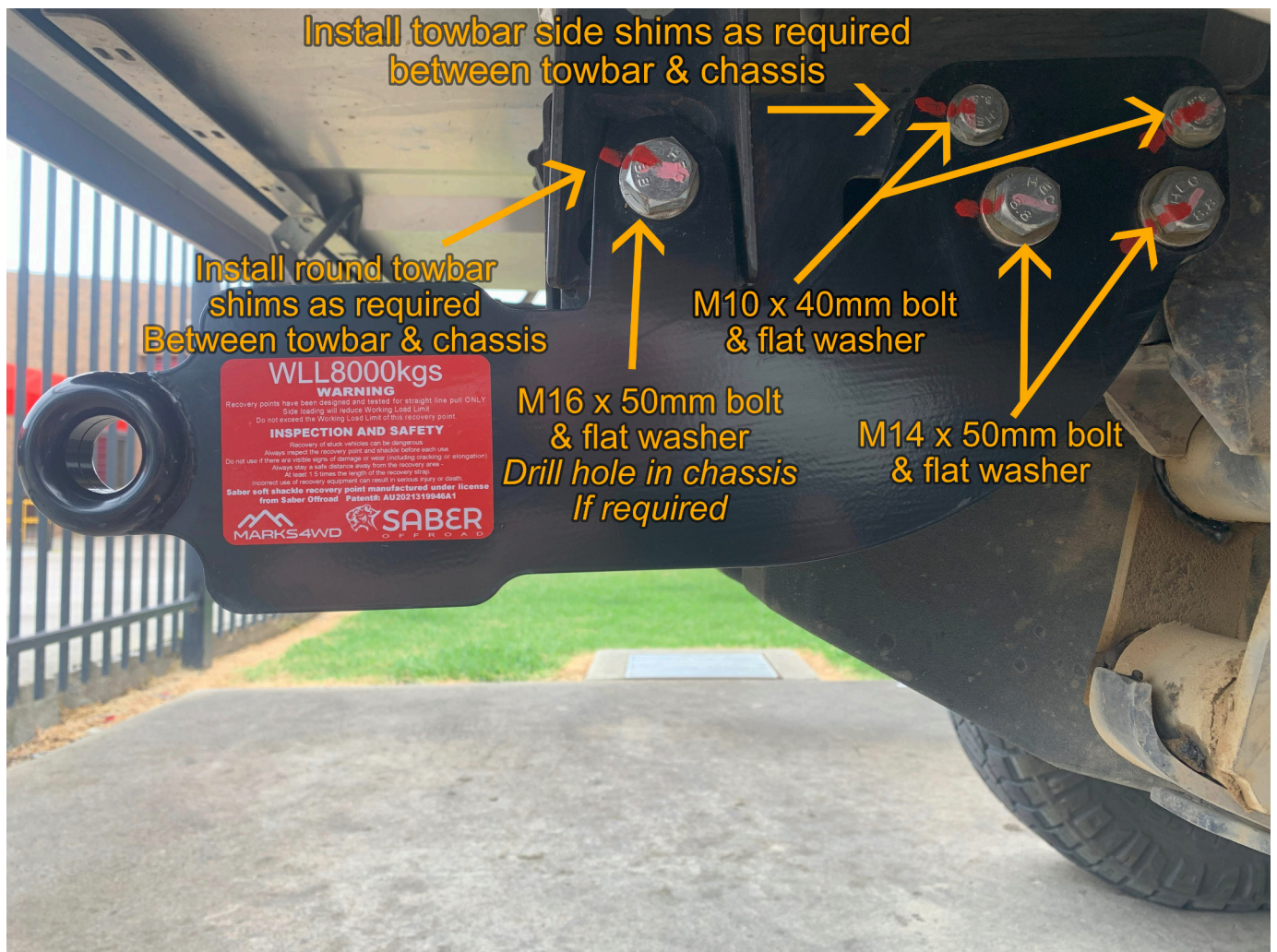Attach all remaining M10 X 1.25 X 40 and M14 X 1.5 X 50 bolts and washers.
If installing the towbar to single cab chassis variants, now install the towbar round shims each side of the towbar and equally divide the shims for each side.
Now install the two M16 x 1.5 x 50 bolts and M16 Washers.
See image 4.1 & Page 2.
DO NOT TORQUE.

Image 4.1 Bolt & Shim Locations

Step 5 Align The Towbar

Ensure towbar is pulled rearward, so that the gap between chassis and towbar centre section is maintained.

Note: Ensure the towbar is lifted so that the side plate spacers are touching the chassis.

Lightly tighten all bolts to ensure towbar does not move. **DO NOT FULLY TORQUE.**

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Step 6 Drill Hole (Double Cab Chassis Variants)

Double Cab chassis variants don't have a hole in the chassis in the rear tray mount like the Single Cab chassis.

See image 1.3 & image 1.4 on Page 3

Use the towbar as a guide to drill the hole required.
Start drilling with a 17mm drill bit. This will then give you a your centre point.
Then change to a 5mm drill bit to drill pilot hole, then enlarge to a 17mm hole in the chassis.
Repeat for both sides. Ensure all swarf is removed from the chassis rails.

Alternatively, you could remove the towbar after witness marking or using the 17mm drill bit to gain your centre point. Then drill the required hole in the chassis tray mounts and repeat for both sides.

Important: Remove swarf, deburr and rust proof when complete.

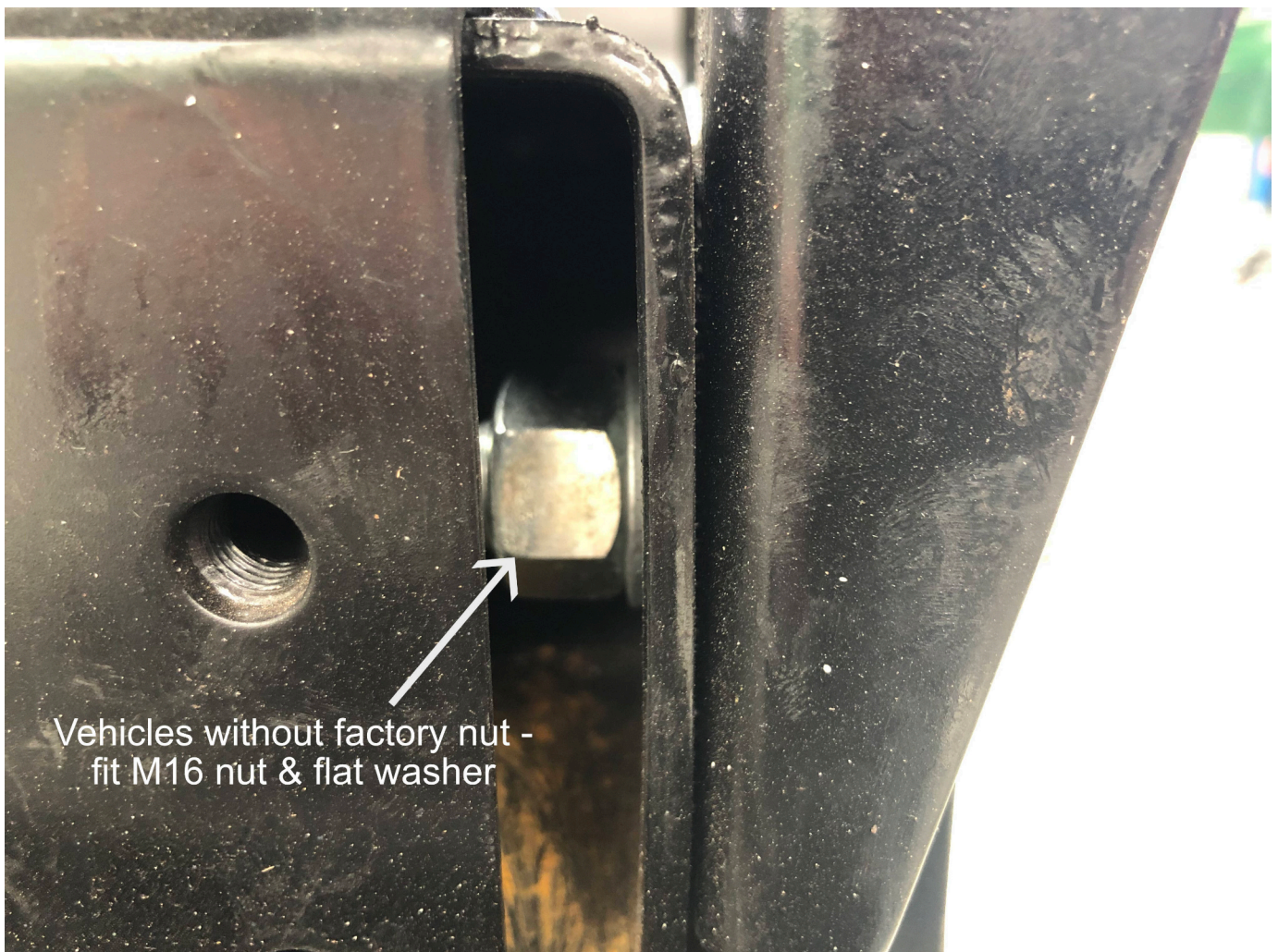Reinstall towbar if removed, as per step 2 through to step 4.

Step 7 Inserting Round Shims

Check gap from towbar to chassis (each side) where you have drilled the hole in the chassis in each rear tray mount. Install the towbar round shims each side of the towbar and equally divide the shims for each side. Now install the two M16 x 1.5 x 50 bolts, M16 washers and M16 nuts and repeat for both sides. Remember to install the M16 washer under the M16 nut on the inside of the chassis rail. *See image 7.1* **DO NOT TORQUE.**

Vehicles without factory nut - fit M16 nut & flat washer

Image 7.1 M16 nut & washer on the inside of the chassis rail

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Step 8 Install Towbar Vertical Brace

Check all previously installed fasteners have been lightly tightened.
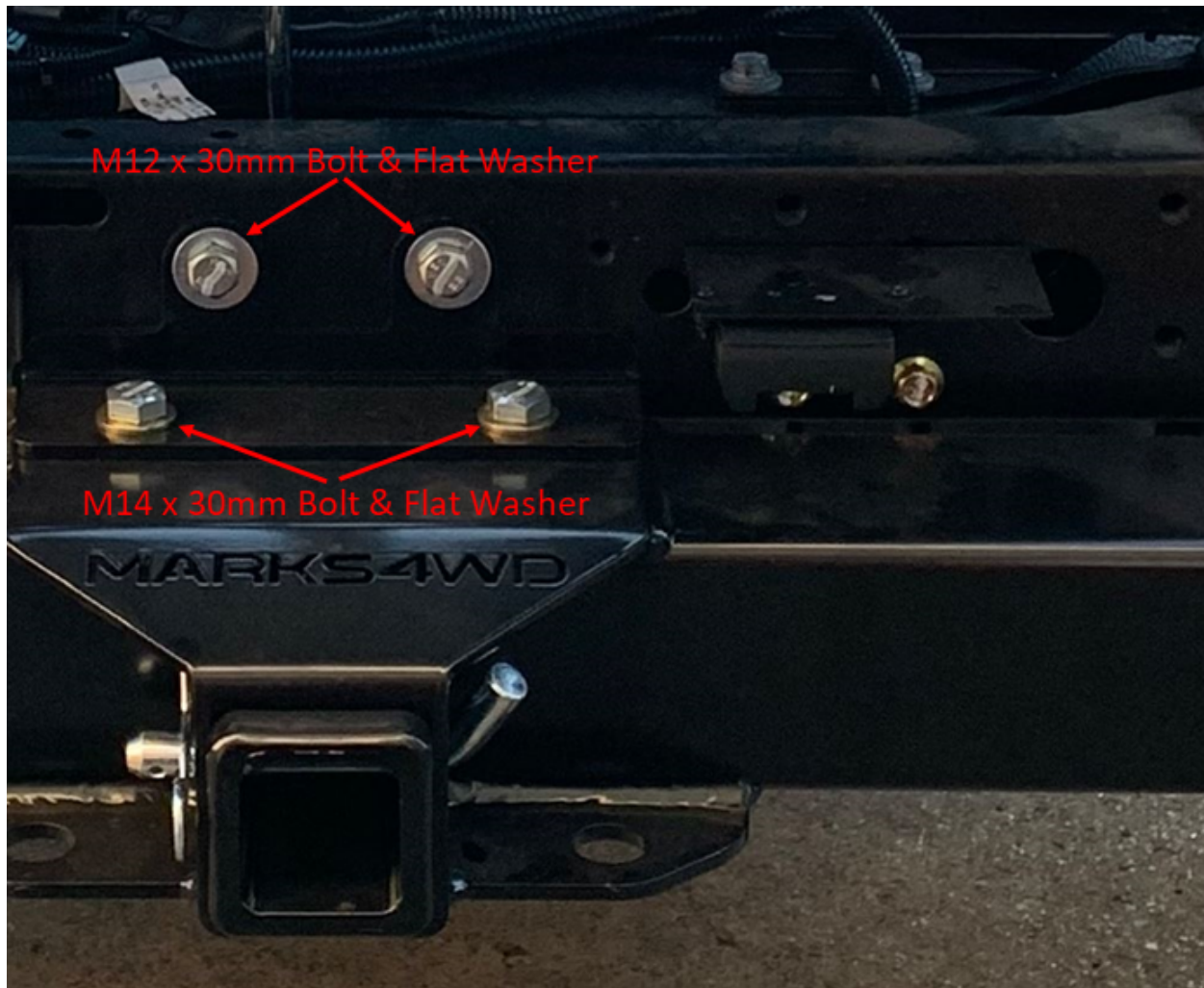
Install the towbar vertical brace using bolts and washers.

M14 x 1.5 x 30 bolts and M14 washers thread into towbar centre section.

M12 x 1.25 x 30 bolts and M12 washers thread into chassis.

Lightly tighten all bolts on vertical brace. ***See image 8.1***

DO NOT TORQUE.

Image 8.1 Towbar Vertical Brace Bolts & Washers

Step 9 Torque All Fasteners

Torque all fasteners for the towbar in following the sequence as indicated below.

M14 bolts on towbar side plate torque to 212Nm.

M10 bolts on towbar side plate torque to 73Nm.

M16 bolts on towbar side plate torque to 192Nm.

M14 bolts on vertical brace torque to 85Nm.

M12 bolts on vertical brace torque to 53Nm.

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Step 10 Trailer Wiring Harness (harness including trailer module is purchased seperatly)

When installing the trailer wiring harness use the Toyota fitting instructions for the following,

- Identify the vehicle pre-wire connector
- Remove the blanking plug from pre-wire connector
- Mate the connector to the Trailer Wire Harness mating connector
- Secure the Trailer Wire Harness ground ring terminal
- Route & Secure the Trailer Wire Harness, **excluding the 7-Pin Flat Trailer Harness Socket.**
- Connect the Trailer Wire Harness ECU connector to the trailer module
  - *(Mounting the trailer module to the Marks4WD bracket See Step 11 on Page 9)*

Follow the below process for installing the 7-Pin Flat Trailer Harness Socket.

There is a hole in the trailer plug mount that aligns with the chassis when installed correctly.
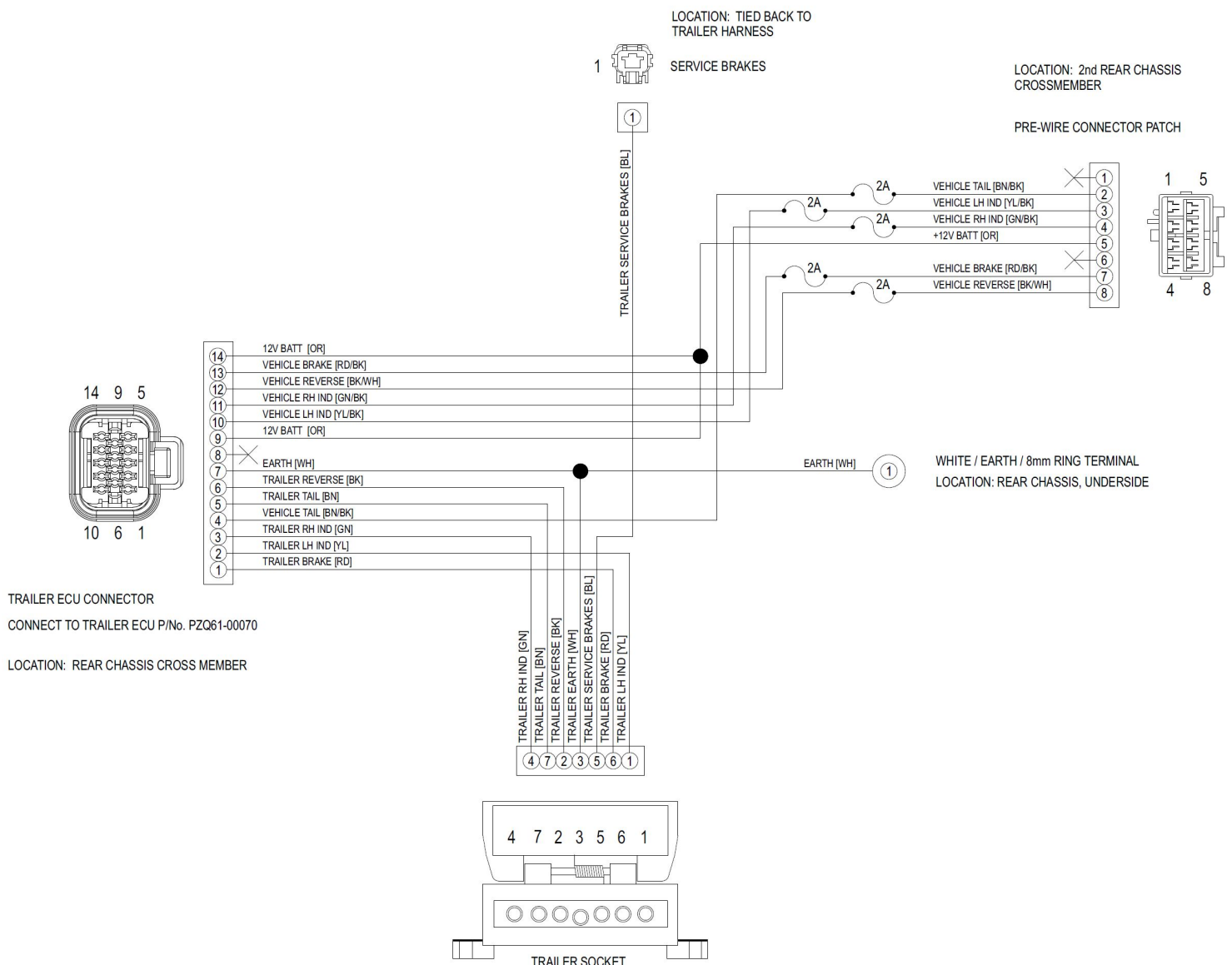*See Step 2 on Page 4*

After routing the trailer wiring harness as per the Toyota fitting instructions, then disconnect the wiring harness from the 7-Pin Flat Trailer Socket.
Then the wiring harness can be routed through the rear chassis at the trailer plug mount location.
After routing the wiring through the chassis hole, then reconnect the wiring to the 7-Pin Flat Trailer Socket.
Connect the correct wiring colours to the correct pins inside the plug. *See image 10.1*
Using the bolts, nyloc nuts and washers, supplied with the Toyota trailer wiring harness kit, attach the 7-Pin Flat Trailer Socket to the trailer plug mount you installed in *Step 2.*

Image 10.1 Harness Circuit Diagram

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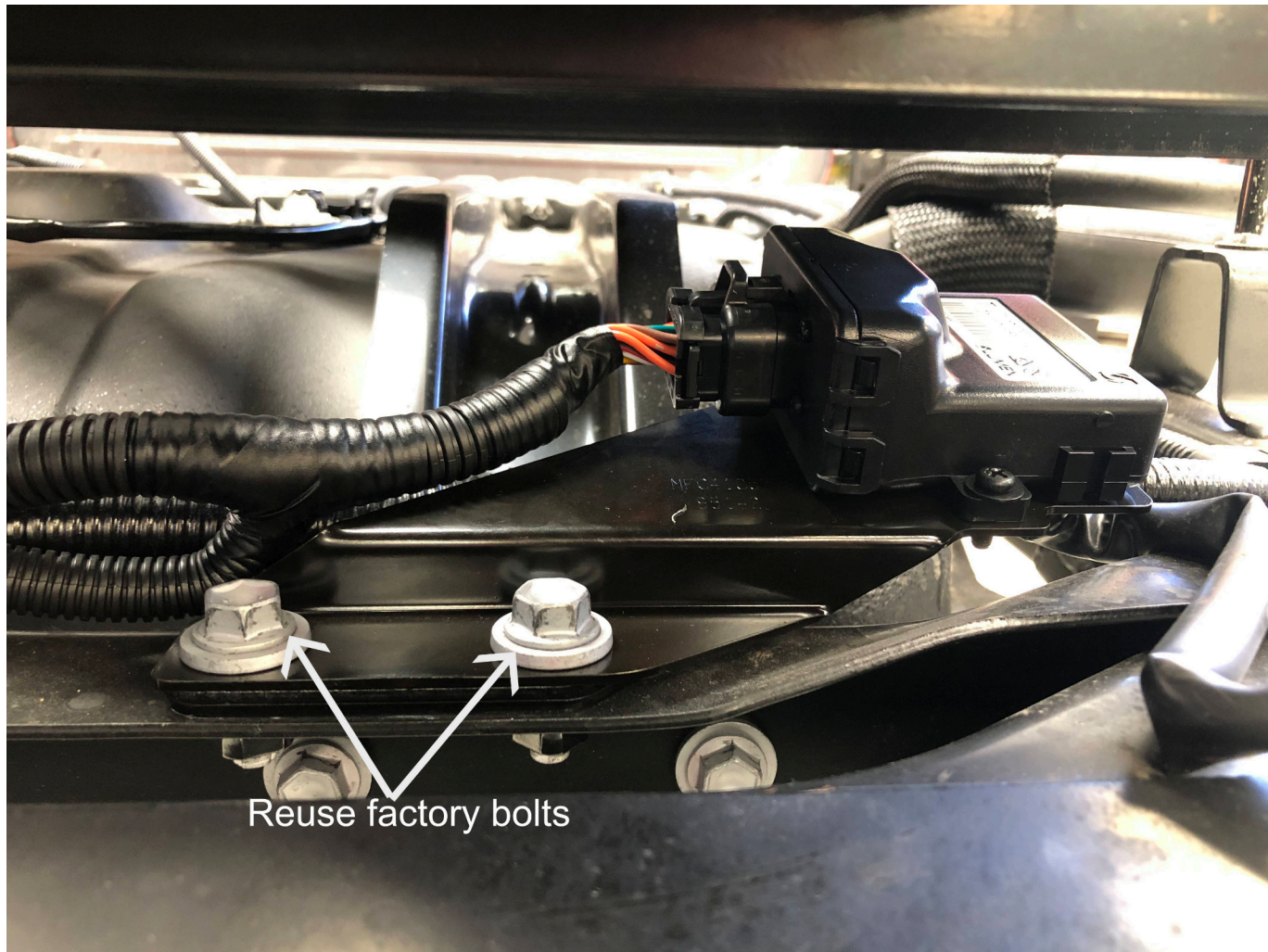
Step 11 Trailer Module Mount

Install the trailer module to the mount using M5 fasteners that are supplied with the trailer wiring harness kit.
Torque the M5 fasteners in the range of 1.3 ~ 1.5Nm.
(trailer wiring harness including trailer module is purchased seperately)
Install the trailer module mount using the existing factory cross member bolts. **Torque to 26Nm.**
See image 11.1

Image 11.1 Trailer Module Mount

Step 12 Check Operation

Refit the negative battery terminal.

Post Terminal Torque to be between 2.9 ~ 7.8 Nm.

Test the function of the Trailer Wire Harness at the 7-Pin Flat Trailer Harness Socket.
Use a test light or a multi-meter to check correct operation.

Important:
- **Refit all removed parts and secure all fasteners to the Service Manual torque specifications.**
- **Reprogram all radio stations and clock settings by referring to the vehicle's owner manual.**

Terms and Conditions

Thank you for purchasing this product manufactured by Marks 4WD Adaptors. Components supplied in this kit are designed and machined for a specific conversion only as outlined in this guide. Modifications to or substitution for any of the components without the written consent of Marks 4WD Adaptors will void any possible warranty or return privileges.

The following instructions are intended as a guide and only for Marks 4WD Adaptors kits. If you do not fully understand the steps, modifications or changes required to complete the conversion, contact our sales department for more information. We recommend that you purchase a service manual pertaining to your vehicle for specific torque values, wiring diagrams and other related information.

Contact Information

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