



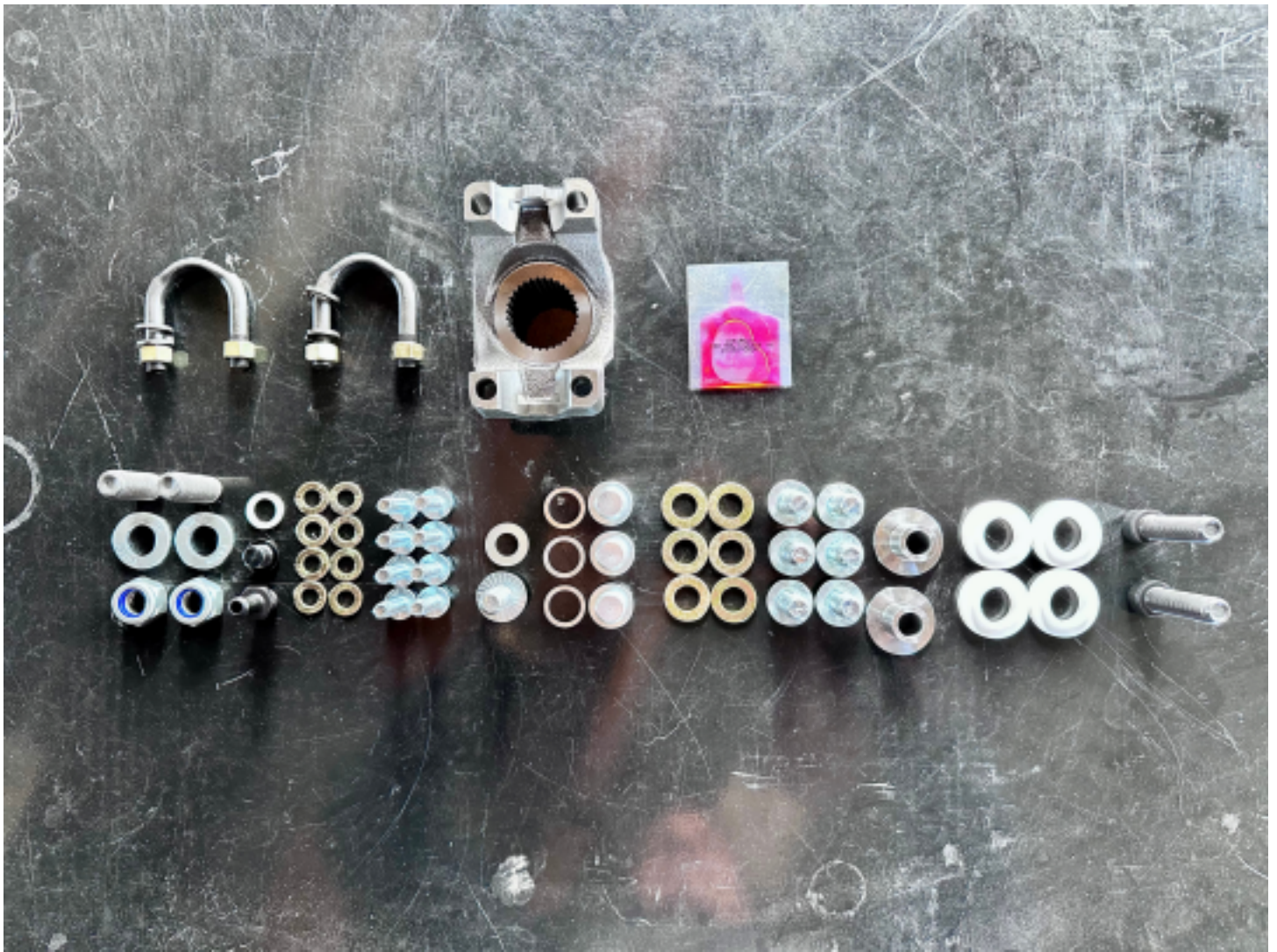
R200-M86 Fitting Kit Instructions

Please take a moment to check and familiarize yourself with all components and mounting hardware in this kit. We have endeavored to make this kit modification free and easy to install.



Please check and identify you have the following components;

- 1) 1 x Diff Hat**
- 2) 1x Front Bracket**
- 3) 1 x Hardy Spicer 1350 Series M86 Yoke**
- 4) 1 x Hardy Spicer 1350 Series U Bolts set**
- 5) 1 x Right Hand Drive Shaft**
- 6) 1 x Left Hand Drive Shaft**
- 7) 2 x M14x1.5 Diff Hat Studs**
- 8) 2 x M14x1.5 Diff Hat Nylock Nut**
- 9) 2 x M14 Heavy Duty Washer**
- 10) 1 x 7/16UNF-5/16 Barb Diff breather with O-Ring**
- 11) 1 x M12x1.5 Temperature sensor port Blanking Plug with Alloy plug washer**
- 12) 3 x 5/8 UNF Blanking Plug with Alloy Plug Washer**
- 13) 8 x 5/16x1.25" UNC Diff Hat Perimeter Bolts**
- 14) 8 x 5/16 Heavy Duty Diff Hat Perimeter Washers**
- 15) 1 x 12x1.75x30 Diff Drain Plug and Alloy Plug Washer**
- 16) 6 x 12x1.75x25 Diff Side Mount Bolts**
- 17) 6 x 12mm Heavy Duty Washers**
- 18) 2 x Crush Tubes**
- 19) 4 x PTFE Nylon Bushes**
- 20) 2 x 12x1.25 x 50 Socket Head Bolts**



A) The first task is to prepare the diff and diff hat for assembly, secure the diff in a way on the bench top or engine stand to allow access to all diff perimeter bolts. Ensuring that the diff assembly mounting face is clean and free from oil, apply a bead of high quality RTV sealant to the mating surface on the diff.

Assemble the Diff Hat ensuring that the hat is square with the dowels, some gentle force may be applied with a small soft face hammer. Fit the 8 x 5/16 UNC bolts with hardened washers and tighten in a diagonal pattern to **23Nm (17ft/pd)**

Do Not forget to bolt the two diff carrier nut retainers at this point.

Fit the M12x1.75x30 Diff drain plug with Alloy Plug Washer.

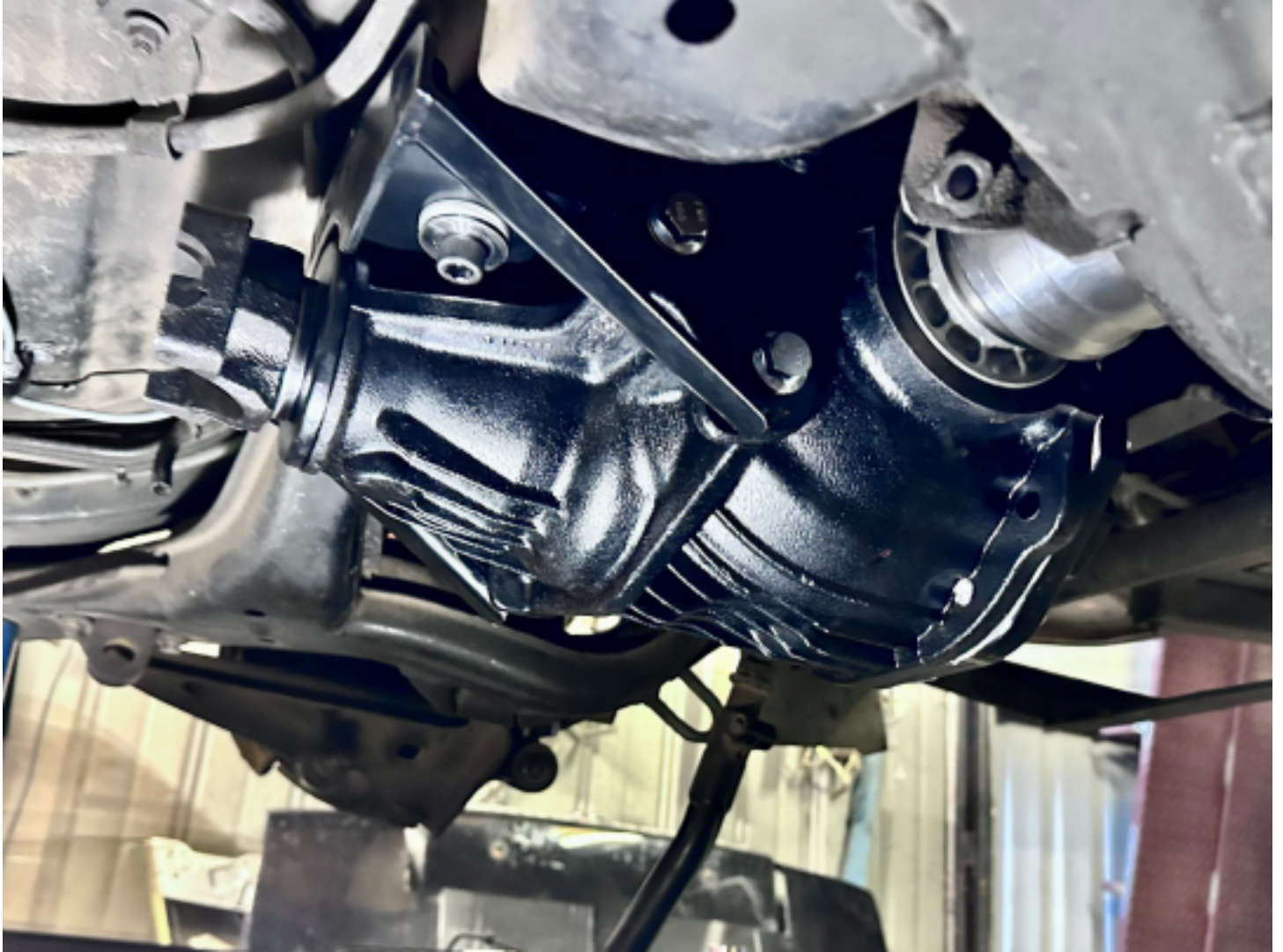
The Diff Hat Studs are next to be fitted, using soft jaws in vice hold a 20mm portion of the stud, wind on the M14x1.5 Nyloc nut far enough to expose a full thread on the stud. Do this to both Studs. Apply High Strength Loctite 263 or similar fit the studs to the Diff Hat, screw the studs in to leave a 6-7mm gap between the bottom of nut and boss on Diff Hat, this distance can be set easily done using both the 14mm Heavy duty washers in kit. Once the Loctite has cured remove the Nylock nuts. Check and clean the 6 side mounting threads in diff, check that the bolts wind in by hand then remove.



B) Remove the factory round CV joint style yoke from the M86 Diff, gently remove the dust cover from factory yoke and install it on the Hardy Spicer 1350 yoke supplied, fit the 1350 Yoke to M86 and tighten to manufacturer's specification. **Please seek professional help with this stage as over/under tightening will lead to premature diff failure.**

C) The next step is to mount the Front Bracket to R200 Subframe. Install the 4 x PTFE bushes to the front bracket, the 2 Crush Tubes can now be installed, these push in from the underside of the bracket. Using the 2 x 12x1.25x50mm Cap Head bolts fit the bracket to the R200 subframe using the original front diff mounting point, these socket head bolts are to be only hand tightened at this point.

D) Place the M86 differential on an appropriate lifting device such as a transmission jack and raise diff into position, guide Diff Hat rear studs into the bushes at rear of Subframe, fit Heavy duty washers and hand tighten M14 Nuts, do not Tighten at this stage. Adjust diff position as required and start the 6 x 12x1.75x25mm side mounting bolts using the 6 heavy duty washers as required. Once all bolts have been successfully started, wind in bolts all hand tight, then torque to **79Nm(58ft/pd)**. Tighten M14x1.5 Diff Hat Nylock nuts to **108Nm(80ft/pd)**, Finally tighten 12x1.25x50mm Socket Head Front Bracket bolts to **95 Nm(75ft/pd)**



E) You will note that our driveshafts are complete units with no bolt together flanges, to install the R200-M86 drive shafts firstly support the hub with jack or similar lifting device, remove rear traction rods and rear camber arms from hub assembly, remove the lower coil over bolts and remove coil over from hub assembly. Grease the inner CV shaft spline, circlip and axle seal and seal surface on CV joint. Holding the Driveshaft straight insert the inner CV joint into the differential. You may use a soft blow hammer to gently Driveshaft home. Check correct fitment by checking the resistance on the inner CV joint circlip, you will feel a small amount of movement back and forth. There will now be enough freedom with the hub laying over to engage the outer CV into the wheel bearing hub. Refit the Traction Rods and Camber arms, refit the coil over and refit coil over bolt. Repeat for the other side. Using the 24x48x6mm Heavy duty washers in the fitting kit, assemble to drive shafts with castellated nuts. Discard washers supplied with Drive shafts. Tighten Drive shaft Nuts to 225-260 Nm(166-192 ft/pd), adjust nut clockwise as required to install a 4mm cotter pin.

F) Almost there! Using the Hardy Spicer U-Bolt Kit, install the tailshaft assembly ensuring the universal joint caps are located between the locating notches on the yoke, tighten the U-Bolt clamps in an even manner to a torque of **43 Nm(32ft/pd)**, there should be an even amount of thread protruding from each nut.

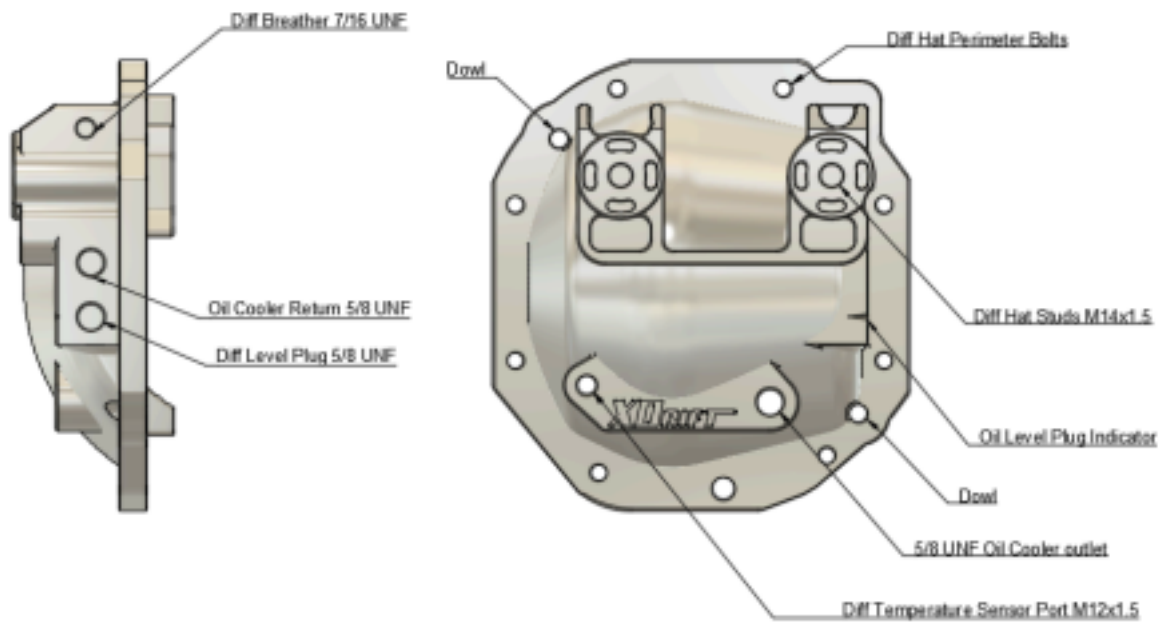
Failure to complete this step correctly will lead to vibration or possibly catastrophic failure.



G) Remove the diff filler plug, (**this is noted by the notch alongside this port, use ½ inch spanner**) ensure vehicle is level and fill diff with appropriate diff oil to suit the LSD center being used. The volume will vary somewhat between different makes of center's used, however it will take approximately 2 litres. Check gearbox / transmission oil levels are correct at this point. Finally connect diff breather hose to 5/16 barb on RHS rear of Diff Hat. For Motorsport applications we strongly recommend using a catch can, at minimum a long pigtail that reaches high into the vehicle's boot area.

H) Refit wheels, and torque wheel nuts to specification, if we have supplied diff, please follow KAZZ break in instructions supplied and perform oil change once complete. On initial test drive check for any driveline vibrations before any spirited driving. We recommend a full nut and bolt check to be performed after 50Km or the first session of Motorsport.

I) If using temperature sensor, external oil pump and cooler please note port locations below



We are committed to your satisfaction, please reach out to us by email or phone if you require any assistance or technical support while installing or using our products.



email xdrift-team@xdriftindustries.com.au

phone 08 61880320