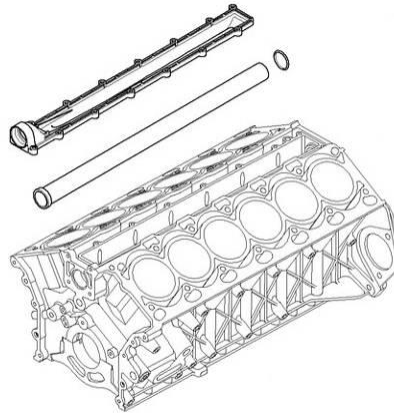




ÜRO Premium Collapsible BMW Coolant Transfer Pipe Part # 11 14 7 500 355-PRM

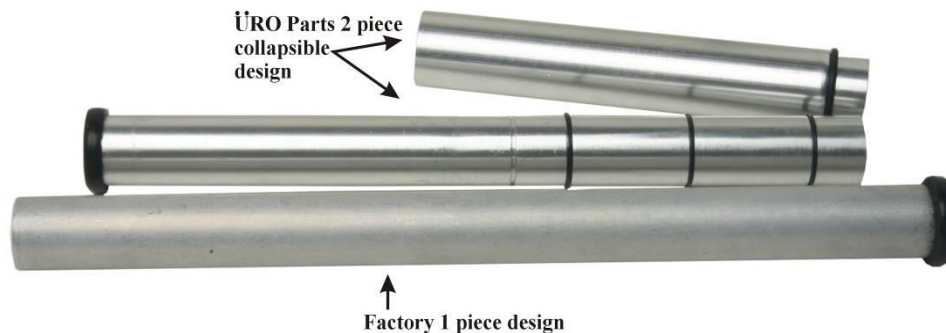
BMW V12 models fitted with the N73 engine can suffer from a failure of the front seal of the water transfer feed pipe located under the intake valley pan gasket.



The original bonded seal fails primarily due to corrosion caused by an electro chemical reaction between the materials over time.



Symptoms will be a coolant leak coming from the weep hole in the front timing cover of the engine, with an eventual loss of coolant, overheating, and possible engine failure.



The factory design is a long single tube which can only be fitted from the front of the engine with the timing cover removed; a job that can cost upwards and take over 20 hours of shop time.

The ÜRO Parts re-designed the water pipe collapses allowing the same repair to be complete without removing the timing cover saving thousands in labor costs and many hours of down time.



BMW Water Tube Kit Contents:

<u>Item Description</u>	<u>Supplied</u>
#1 Front Inner Water Tube	(qty 1)
#2 Rear Outer Water Tube	(qty 1)
#3 Angled Rear Packing Piece (nylon)	(qty 1)
#4 Rear Packing Shims 0.020" (nylon)	(qty 3)
#5 Inner Tube O-Ring Seals	(qty 3)
#6 Rubber Grease Packet	(qty 1)
#7 Spirolux Locking Ring	(qty 1)
#8 Front Tube Seal	(qty 1)
#9 Rear Tube O-Ring Seal	(qty 1)

Additional BMW Factory Parts Recommended:

*(This is a list of other items that will be required for completion of the water tube Installation)

Qty 1	11 51 7 507 717	water pump o-ring
Qty 1	11 51 7 508 535	water pump gasket
Qty 1	11 51 1 439 976	water return pipe
Qty 1	11 14 7 506 384	intake valley pan / gasket
Qty 2	11 61 7 568 910	intake manifold gasket

Note: Other miscellaneous parts may require replacing based on the tear down necessary to access water pipe. See factory workshop manual for suggested parts listing.

The following is a guideline for installation of the kit and illustrations showing the basic steps. A trained technician following the factory workshop manual and repair procedures is necessary to properly complete this repair.

Note: All images have been completed on a stripped engine block for the purpose of making the photos clearer; this is not required for the repair.

1. After draining the cooling system, remove the intake manifold and other related components to expose the intake valley pan.



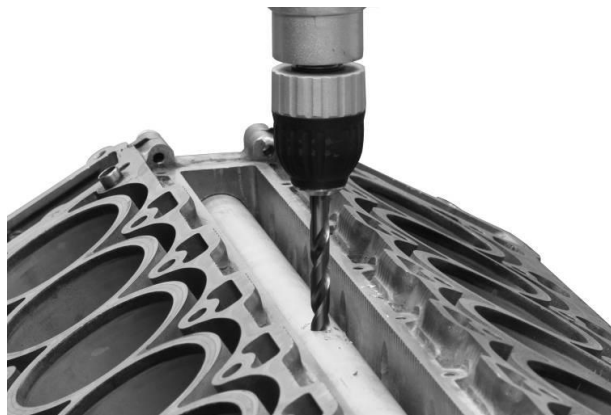
2. Remove the intake pan so the factory 1 piece coolant pipe will now be exposed.

Important Note: Space is extremely limited within engine block Vee and machined edges are very sharp; gloves should be worn at all times to avoid injury.

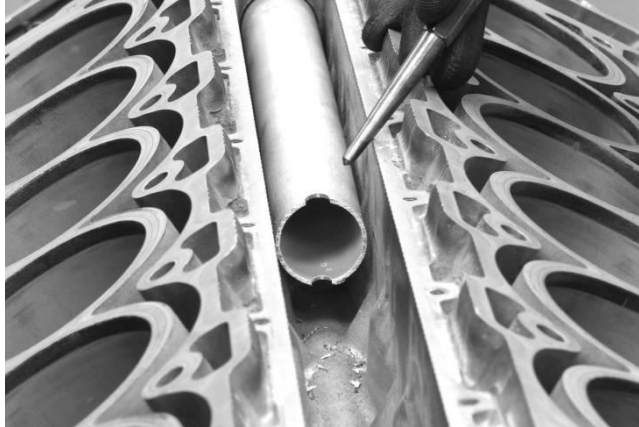
3. The existing pipe can now be cut in the center with a small air saw or cut off wheel.*

Important Note: Care must be taken at all times to keep debris and cuttings out of the engine.

4. To do this mark center of tube with a punch and drill a 3/8 hole through the upper and lower walls of the tube taking care not to drill into the engine block below.



5. Insert the blade of a small reciprocating saw into the hole and cut the pipe in two pieces. Again care must be taken not to cut into the surrounding engine block.



6. Remove the factory pipe in 2 pieces. The front will require some twisting or careful prying to break the bond of the front seal, large pliers are best suited for this job.



Important Note: Care must be taken at all times to keep debris and cuttings out of the engine.

7. Remove the remaining front seal material with a pick and wire brush taking care not to damage the seal housing.



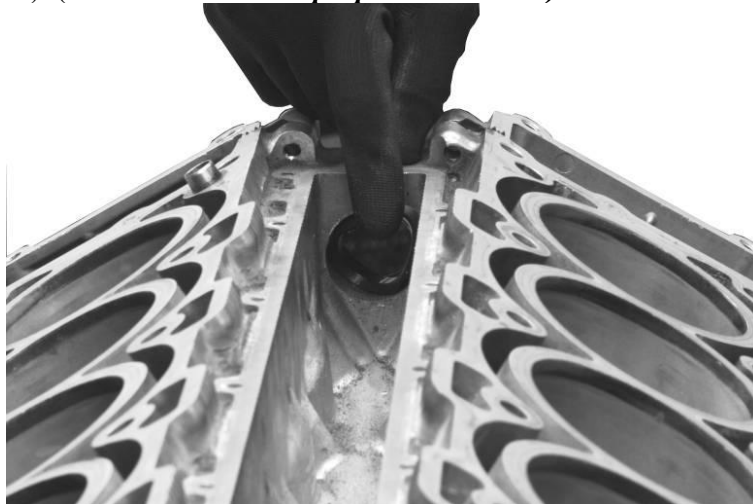
8. Remove the old rear o-ring seal taking the same care.

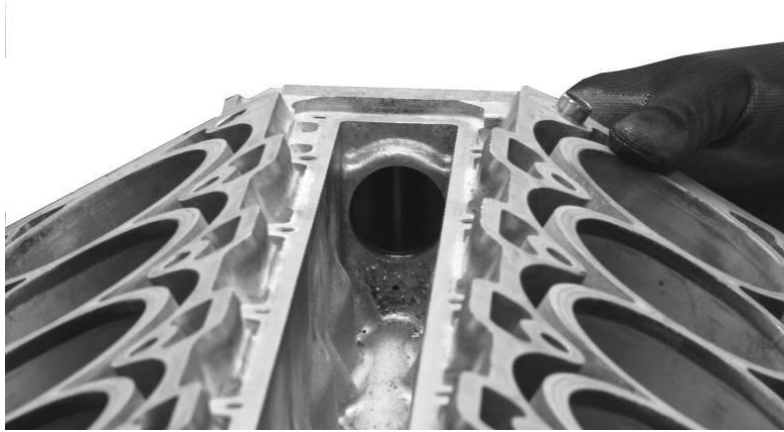


9. Carefully clean the front seal gallery. Lubricate all surfaces of the front seal liberally with the grease provided in the kit.

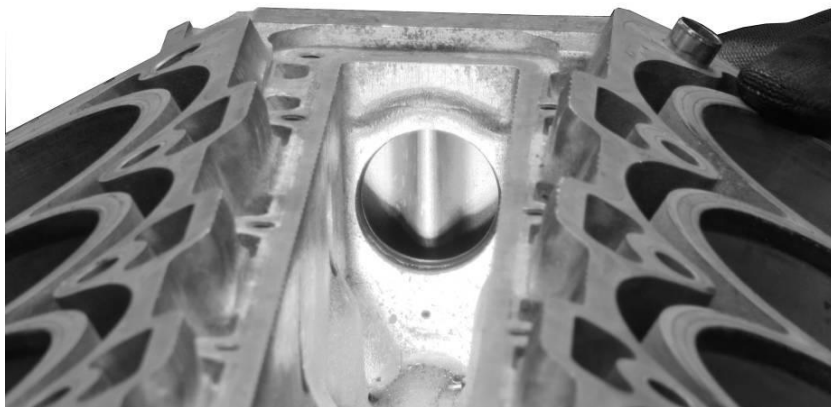


10. Fully fit front seal into housing taking care to make sure the ***flat profile** of the seal faces the timing cover (forward). (**this is critical to a proper installation*).

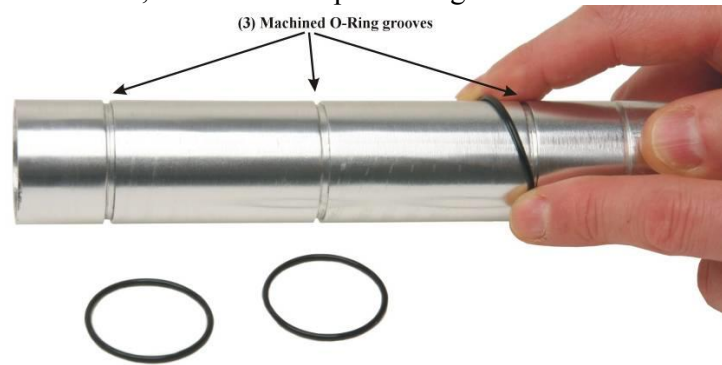




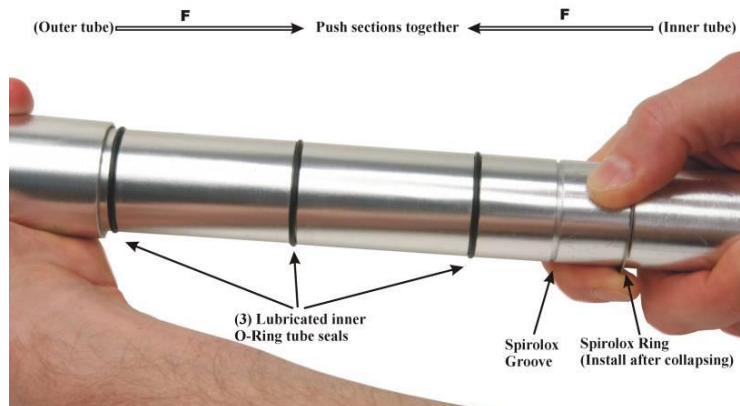
11. Perform the same lubricating and fitting operation to the rear o-ring; noting however there is no orientation necessary for this seal.



12. Fit the 3 supplied inner tube o-rings carefully to the front tube section so each is fully seated into the machined grooves on the tube; lubricate with provided grease.



13. Fit inner and outer tube sections together taking care not to pinch or damage any of the pipe sealing rings & collapse completely.



Then install the spirolox around the smaller diameter front tube and position it by sliding it up against the end of the larger outer tube.

14. Fit rear white nylon angled packing piece onto the back end of the water tube with the flat side against the water pipe shoulder and with wide angle facing upward. Lubricate the end of the rear (short) tube section tube with grease provided.



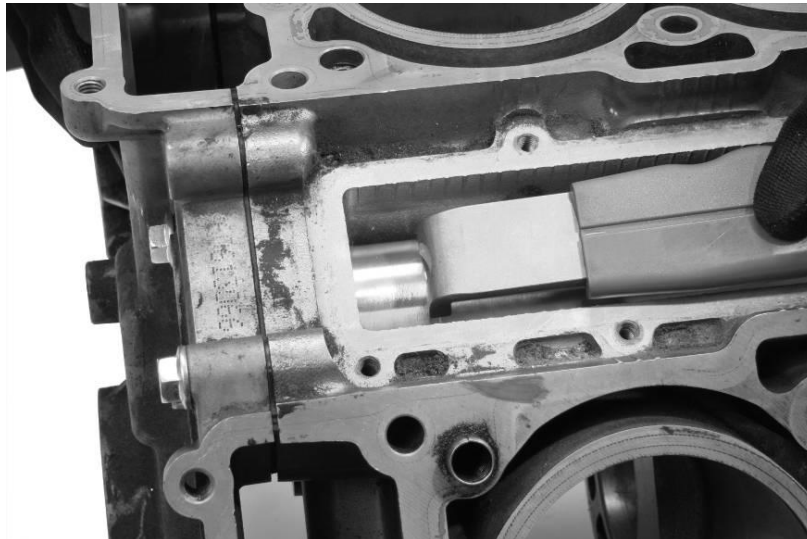
15. Taking the assembled and collapsed pipe grease the front end of the pipe and at a slight downward angle fit the tube into the front seal opening and push it towards the timing cover.



16. The very narrow confines on the V12 block necessitate the rear section of the tube to be held above the center water gallery.

17. Once the tube is fully pushed forward there will be just enough room to fit the rear section into the rear seal opening. Once the tube fits within the intake block valley push it rearward until it stops.

18. While holding the rear tube section in place use a suitable tool and push the front section forward using the machined groove located at the front of the tube until it hits the timing cover.



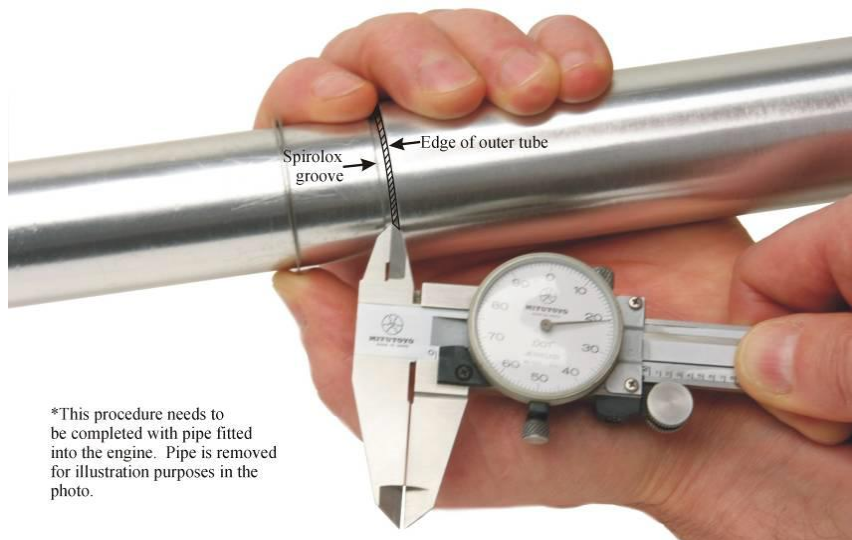
Important Note: Space is very limited within engine block “V” and machined edges are very sharp; gloves should be worn at all times to avoid injury.

19. This should just expose the ring groove allowing the pre-installed locking ring to be slid forward into place.



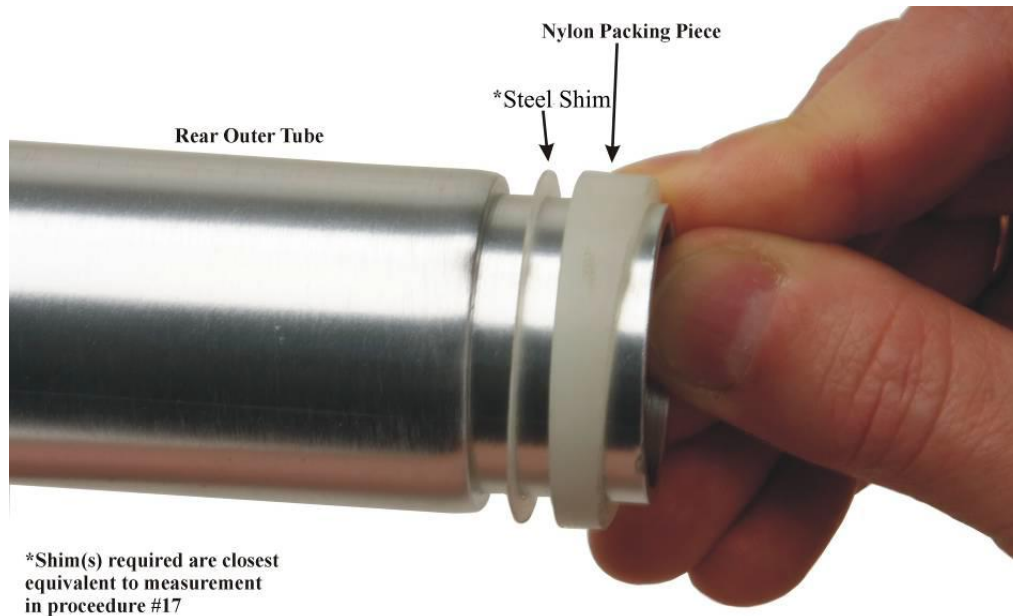
Only as required: If after fully seating the tube into the block the snap ring groove is beyond the end of the rear tube half, installation of shims will be required. Casting variations during block manufacturing may make this simple procedure necessary.

20. Measure the distance from the rear edge of the ring groove to the rear tube end in thousandths of an inch.

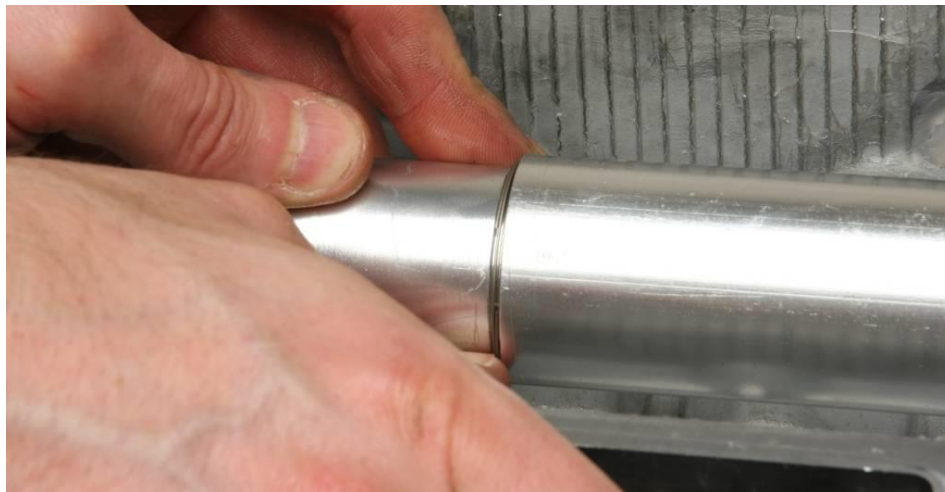


*This procedure needs to be completed with pipe fitted into the engine. Pipe is removed for illustration purposes in the photo.

21. Slide rear tube section forward again, remove the nylon packing piece and fit the appropriate shim stack (equaling the previous measurement) refit packing piece taking care to orientate it properly.



22. After re-seating the tube in the block the lock ring groove should now be exposed with no slop. Push spiral lock ring forward into groove locking tube in place.



Fit new intake pan gasket # 11 14 7 507 278 (not provided) and reassemble per the factory workshop manual.

Important note: A cooling system pressure check is necessary once all the appropriate components are installed to ensure pipe was installed correctly.