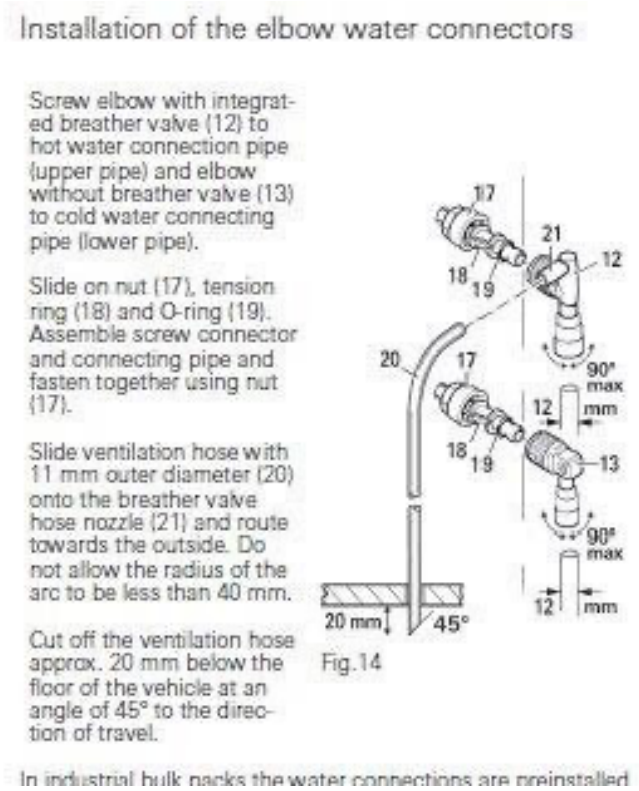
Replacing the Truma Water Unit Hot Water Connector

Note: Reference should be made to the Truma B14 hot water system user manual.
I have noticed over the past year or so, that water has appeared under my van and I have finally looked for and established it was coming from the discharge tube attached to the Hot Water (HW) connector (or elbow with integrated breather valve). Within the Truma manual this is identified as 'item 12', Pt.No. 34150-01 Hot water connector, 10 mm / 3/8".



The Truma B14 HW system user manual, Fig 22 is shown abovet. The connector at the top of this extract is the HW connector. Tools need to remove and replace this connector are simple; a 22mm (7/8 AF) ring spanner; small needle nose pliers; small wire cutters.

The picture above shows the various parts of the connector. There is the body and the small tube-like protrusion is the drain or discharge pipe connector. The three parts off to the left are a nut, pipe split clamp, and sealing 'O' ring. These pieces hold the connector body to the

water tank. There is also a lock ring which locks the HW outlet tube into the John Guest fitting.

The next two photos above are of the connector as fitted to my van's HW service. Things to note are the water in the discharge tube confirming this connector is not working as expected. Also, a bit harder to see is the cable tie applied to the discharge tube where it fits onto the connector. There is also a cable tie holding the HW output line to the gas feed pipe. Both of these cable ties need to be removed before any other work commences.

Note: Before undoing anything, you should ensure the gas is off; the power is turned off to the water pump, and that any pressure in the water system (hot and cold) is released by way of opening a tap.

Note: It also pays to stuff a towel below the fitting to catch any remnant water in the system.

With the cable ties removed, remove the collet clip. It can be easily pressed off although you need to be careful and note where it 'flies' to as it could easily be lost behind things. Pushing the collet into the fitting, and whilst holding it in, the HW outlet tube should simply pull out. Move the HW outlet tube out of the way.

Holding the HW connector with one hand to stop it turning, use the 22mm open end spanner to undo the nut holding the connector to the hot water unit's outlet pipe. Once loose, the nut should be able to be fully undone by hand.

With the connector fitting free of the hot water unit, holding it in one hand, use your other hand to gently disconnect the discharge tube from the connector.

This will leave you something looking like the picture below: 3 pipes and nothing joining them together. I've left the original nut on the HW unit's outlet tube in this photo.

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To reassemble the connector and pipes, you should:

(1) Place the loose nut in the correct orientation back onto the HW unit's outlet pipe ;

(2) Slip the split collet onto the steel outlet pipe (it should fit inside the nut);

(3) Insert the new 'O' ring into the threaded end of the connector;

(4) Carefully refit the connector and the discharge tube (it may pay to install a new cable tie at this point if access to it after the connector is installed will prevent it being fitted). You will need to be careful that the 'O' ring does not fall out of the connector;

(5) Carefully align the connector to the HW outlet pipe and loosely do up the nut being careful not to cross thread the nut and connector threads.

(6) Holding the connector fitting with one hand with the collet pushed fully into the fitting, carefully insert the HW outlet tube until it is 'fully home' (this is around 20mm). Then pull the tube out of the fitting allowing it to pull the collet out with it until the tube stops 9a few mm). The collet clip can then be re-instated on the collet.

(7) Complete doing the connector nut up, being careful not to over tighten it and strip the connector thread.

At this point you can turn the water pump back on and check for leaks. If none found, leave the pump on and check again after several hours. If all good, remove your towel and finish stabilizing the HW tube with a cable tie as needed.

The link below provides guidance on the use of John Guest fittings:

https://www.caravansplus.com.au/guides/how-to-use-john-guest-push-on-fittings-a-11.html

One thing I did note with the HW connector, is that in all diagrams and photos in the Truma manual, the orientation of this fitting is with the discharge connector being at the top of the fitting and the HW outlet tube facing down: i.e.: both aligned in a vertical plain. Whereas with my install the fitting is rotated 90 Degs anti clockwise with the discharge tube being on the same horizontal plain as the HW outlet tube. I don't know if this has any impact upon the function of the breather valve. The existing tube lengths are not long enough to correct this variation in orientation.