



**EARL'S
PERFORMANCE
PLUMBING**

**Hose-End Assembly Instructions:
Convolute PTFE Polyester Braided with
Reusable Ends**

Step 1

- 1.1) In order to prep the hose for assembly, it must be cut to length with PTFE thread tape wrapped around the cut location to prevent the polyester braids from excessive fraying. Do not use duct tape or any other adhesive industrial tape.



Figure 1

- 1.2) Using a sharp box cutter, cut the hose at the location you marked using the PTFE tape. Once cut is made 90% of the way through the hose, a pair of scissors can be used to finish the cut. If needed, use the scissors to trim the braid flush to the end of the hose. DO NOT remove the PTFE tape at this point. It is important the braid should not be allowed to fray apart during assembly. It should remain in its braided state so the hose-end compression stack up is correct.



Figure 2



Figure 3

Step 2

- 2.1) Once the hose has been cut to length and the PTFE tape is still in place, slide the socket onto the hose with care. Repeat for the second socket. However, this one should be put on backwards.



Figure 4



Figure 5

NOTE: If the socket catches on the braid or PTFE tape, rotate the socket clockwise, threading the socket past the end of the hose.

- 2.2) Once both sockets have been put on, the hose should look like **Figure 6** below:

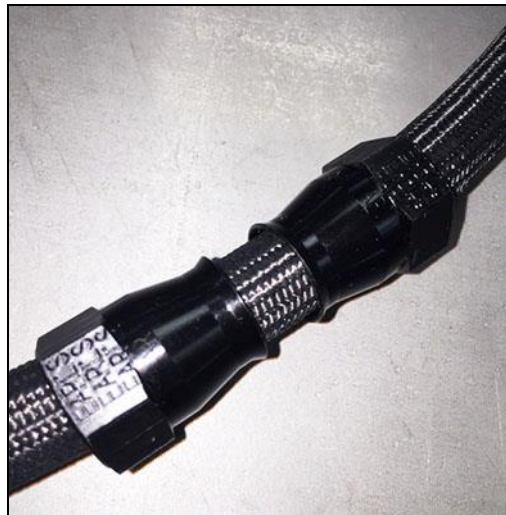


Figure 6

Step 3

- 3.1) Once both sockets are placed onto the hose back to back, the olive will go on next. Gently slip the braid back away from the edge of the hose, still leaving the PTFE tape in place. The olive is then to be threaded onto the hose liner only. Then, release the tape from the hose and slip the braid up neatly around the olive. Make certain the hose braid goes around the olive and does not get between the olive and hose liner. Take care not to crush the olive. Thread the olive past the end of the hose only enough to allow the cutting of the hose flush.



Figure 7



Figure 8

NOTE: If threading the olive becomes difficult by hand, pliers may be used (**Figure 8**). Only use minor pressure as to not damage the olive.

Step 4

- 4.1) Once the olive has been threaded a little past the end of the hose, the hose can now be cut to square it up with the olive. We recommend using a box cutter with a sharp blade. Cut the hose flush with the olive being careful not to dig into the olive. Make sure when trimming and trueing up the convoluted hose (once threaded through olive) that a minimal amount only is used. Too long of a trim can result in the hose to the braid ratio being unequal. Excess braid can interfere with the assembly process.



Figure 9



Figure 10

NOTE: An attempt at cutting the hose square without the aid of the olive will result in a bad cut, leaving that part of the hose useless (**Figure 10**).

Step 5

- 5.1) At this step, the olive should be fully flush with the hose. If the hose is below the face of the olive, rotate the olive clockwise slightly until no part of the hose is below the face.
- 5.2) You may now peel off the PTFE tape and pull the braid slightly over the olive.

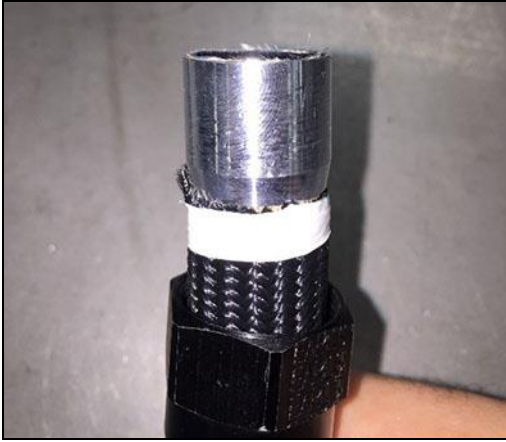


Figure 11



Figure 12

Step 6

- 6.1) Apply a light coat of Earl's Assembly Lubricant™ onto the fitting threads and nipple, and then carefully work the braid toward the hose end. On short hoses, make sure the braid is not working away from the other end. If the braid is loose on the hose after both hose ends are assembled, the hose will likely fail at low pressure. Also, make certain none of the braid gets between the socket and body threads during assembly.

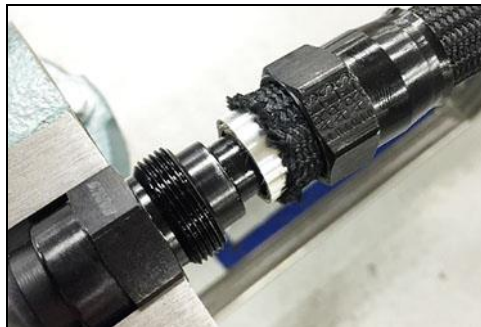


Figure 13

- 6.2) Once the olive is pressed against the body of the fitting as far as it will go, pull the socket over the olive and begin to thread the socket by hand clockwise onto the body, being careful not to cross the thread.

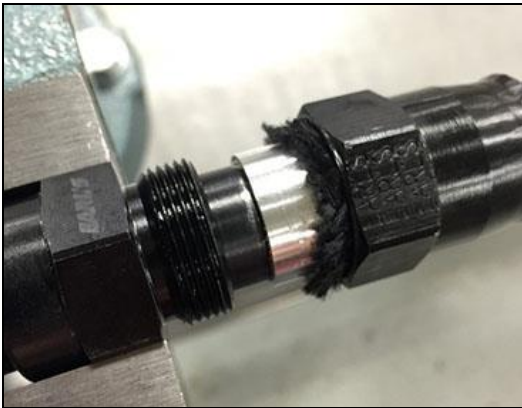


Figure 14



Figure 15



Figure 16

Step 7

- 7.1) Once the first couple threads have been engaged fully, an aluminum AN fitting wrench may be used to aid with the assembly of the hose end. However, be very careful not to overtighten.



Figure 17

- 7.2) While tightening the socket, pay careful attention to the torque being applied. When the socket's compression on the convolutes is optimal, you will feel the torque required to rotate the socket suddenly increase. **Stop turning the socket at this point.** This may not happen until the gap is closed. If so, then this is acceptable. Repeat this process for the other hose end.

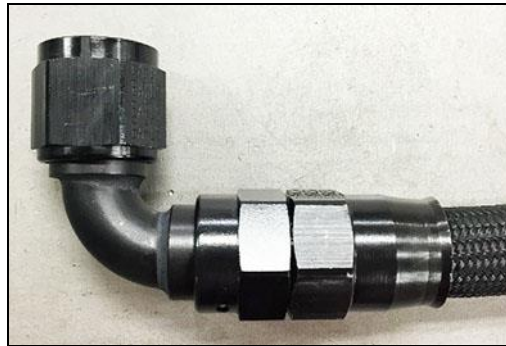


Figure 18

After hose is assembled:

- Never loosen the socket. If this is required, disassemble the hose, and process must be repeated from the beginning with a new olive.
- Pressure test the assembly to 1.5 times the application working pressure, max rated operating pressures are as follows:
 - -6 Polyester 250 psi
 - -8 Polyester 250 psi
 - -10 Polyester 250 psi
 - -12 Polyester 250 psi
 - -16 Polyester 250 psi
 - -20 Mono Filament 125 psi

Disassembly process:

- Lightly grip the hose end body in a vise and use a wrench to remove the hose end body.
- Next, clamp the vise onto the hose one inch away from the socket. (This will destroy the section of hose crushed by the vise.)
- Use a wrench to turn the socket and twist the hose until it stops. With a quick motion, further rotate the wrench snapping the socket loose from the olive.
- Remove and reform the hose to round and disassemble the hose end components.

General notes:

- Use EARL'S Aluminum AN Wrenches for assembly. Standard wrenches have longer handle lengths that allow too much torque on hose-ends.
- ALWAYS USE A NEW OLIVE WHEN ASSEMBLING HOSE/HOSE-END. Reusing olives is not recommended and will diminish the pressure rating of the hose or cause seepage.

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