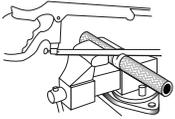
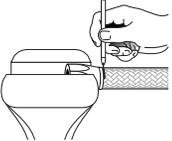
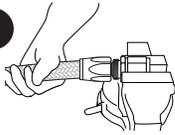


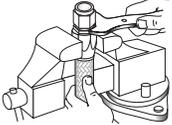
SWIVEL-SEAL™ HOSE ENDS WITH PERFORM-O-FLEX™, PRO-LITE 350™ OR AUTO-FLEX™ HOSE

- 1**  1. Cut the hose to the required length.
- Measure distance between ports or adapter fittings along the path that the hose run will follow—allowing for bend radius, hose end length and offset to obtain length and hose required.
 - Cut the hose square with a radiac wheel or a sharp 32 teeth per inch hacksaw blade. It is necessary to wrap it tightly with electrical or masking tape before cutting and to cut through the tape. This helps to prevent the stainless wire braid from fraying.
 - Trim any frayed ends of the braid with a sharp pair of metal snips or diagonal cutters and remove the tape.

- 2**  2. Place the socket in a vise and insert the end of the hose into the socket until the hose butts against the bottom of the threads provided for the cutter. Gently pull the hose back until there is a 1/16" to 1/8" gap between the end of the hose and the bottom of the threads—mark hose at bottom of socket with a felt pen so that you can detect any tendency of the hose to be pushed out as you complete the assembly.

- 3**  3. Lubricate the inside of the hose, the cutter threads and the socket threads with Earl's assembly lube or engine oil. Place the nipple in a vise.

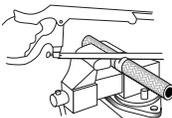
- 4**  4. Holding the hose and not the socket, push the hose and the socket onto the nipple until the socket threads can be started on the cutter. Holding the hose and not the socket, start the threads and go as far as you can by hand. Depending on the size of the hose, some force may be necessary in this part of the operation.

- 5**  5. To complete the assembly it doesn't matter whether the nipple or the socket is held in the vise. Holding one or the other in the vise and using a suitable wrench on the other, tighten the socket onto the cutter threads until the socket is within .060" of bottoming on the nipple. Do not use an adjustable or over-size wrench or you will damage either the nipple or the socket.

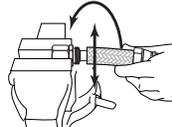
- 6** Check the mark that you made on the hose in Step 2. If the hose has backed more than about 1/16" out of the socket as you assembled it, curse and return to Step 3.
- 7** Clean the hose and the hose ends with CLEAN solvent.
- 8. Pressure test the assembly before letting it out of your sight. Further check the assembly by running the system at full pressure while you observe the hose, hose ends, and adapters for leaks.**

SPEED-FLEX™ HOSE ENDS WITH SPEED-FLEX™ HOSE

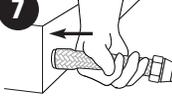
BRAKE LINES are critical items. The potential penalties for improper assembly are severe. Although there is nothing complicated about the procedure and no special tools are required, extreme care must be used in assembly. We strongly recommend that the following procedures be used:

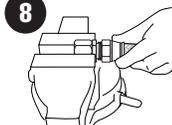
- 1**  1. Cut the hose to the required length. We recommend the use of a radiac wheel but it can be done satisfactorily with a 32 teeth per inch hacksaw blade. In either case, the hose must be tightly wrapped with electrical or masking tape and the cut made through the tape. Do not cut SPEED-FLEX hose with a chisel, snips, pliers, or a shear as these may crush the Teflon liner.

- 3**  3. Install the socket on the hose with the threaded end of the socket toward the cut end of the hose. This will be a lot easier and you will end up with fewer holes in your hand if you clamp the socket in a vise. Push socket on well beyond end.

- 4**  4. Place the hex portion of the nipple in the vise. Insert the end of the hose onto the nipple and bottom the hose against the chamfer seat of the nipple with a rotary motion of the hose. This will size the I.D. of the Teflon tube.

- 5**  5. Separate the braid from the O.D. of the Teflon tube. The best way is to use Earl's special braid spreader tool for sizes 3+4 (see Plumbing Accessories Section). In the absence of the tool, separate the braid with a small screwdriver or a scribe. Be careful not to scratch or nick the Teflon.

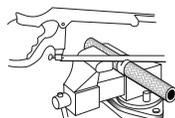
- 7**  7. With the nipple held in the vise, push the hose and the sleeve onto the nipple until the sleeve bottoms. Remove the hose and make sure that the Teflon tube is still bottomed against the shoulder of the sleeve and that the sleeve is still square.

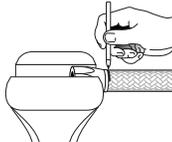
- 8**  8. Push the hose and sleeve back onto the nipple and bottom against the chamfer. Oil the nipple threads. Start the socket onto the nipple threads and hand tighten.

- 9** Place the socket in the vise and complete the assembly by tightening the nipple onto the socket with a wrench until the gap between the face of the socket and the hex of the nipple .023" to .046" — use a feeler gauge.

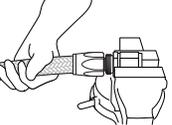
- 10. Blow the assembly clean and pressure test before letting the assembly out of your sight. Check the assembly by running the system at full pressure while you observe the hose, hose ends & adapters for leaks.**

AUTO-FIT™ HOSE ENDS WITH PERFORM-O-FLEX™ OR AUTO-FLEX™ HOSE

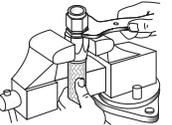
- 1**  1. Cut the hose to the required length.
- Measure distance between ports or adapter fittings along the path that the hose run will follow—allowing for bend radius, hose end length and off set to obtain length and hose required.
 - Cut the hose square with a radiac wheel or a sharp 32 teeth per inch hacksaw blade. It is necessary to wrap it tightly with electrical or masking tape before cutting and to cut through the tape. This helps to prevent the stainless wire braid from fraying.
 - Trim any frayed ends of the braid with a sharp pair of metal snips or diagonal cutters and remove the tape.

- 2**  2. Place the socket in a vise and insert the end of the hose into the socket until the hose butts against the bottom of the threads. Gently pull the hose back until there is a 1/16" to 1/8" gap between the end of the hose and the bottom of the socket — mark hose at bottom of socket with a felt pen so that you can detect any tendency of the hose to be pushed out as you complete the assembly.

- 3**  3. Lubricate the inside of the hose, the nipple threads and the socket threads with Earl's Assembly Lube or Engine Oil. Place the nipple in a vise.

- 4**  4. Holding the hose and not the socket, push the hose and the socket onto the nipple until the socket threads can be started on the nipple. Holding the hose and not the socket, start the threads and go as far as you can by hand.

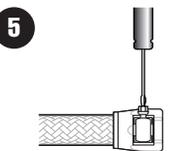
Depending on the size of the hose, some force may be necessary in this part of the operation.

- 5**  5. To complete the assembly it doesn't matter whether the nipple or the socket is held in the vise. Holding one or the other in the vise and using a suitable wrench on the other, tighten the socket onto the cutter threads until the socket is within .060" of bottoming on the nipple. Do not use an adjustable or over-size wrench or you will damage either the nipple or the socket.

- 6** Check the mark that you made on the hose in Step 2. If the hose has backed more than about 1/16" out of the socket as you assembled it, return to Step 3.
- 7** Clean the hose and the hose ends with CLEAN solvent.
- 8. Pressure test the assembly before letting it out of your sight. Further check the assembly by running the system at full pressure while you observe the hose, hose ends, and adapters for leaks.**

TUBE BRAID™ HOSE COVER - STAINLESS TUBE BRAID

- 2**  1. Tape end first to avoid fraying
2. Cut with fine tooth hacksaw blade or shear
3. Slide Tube-Braid onto hose and clamp one end using Econ-O-Fit™ hose end.
4. Work Tube-Braid along hose and stretch to fit snugly

- 5**  5. Install Econ-O-Fit hose end on other end of hose and secure tightly.

ECON-O-FIT™ HOSE ENDS

- 1**  1. Slide Econ-O-Fit™ over hose
2. Slide assembly over nipple.
3. Tighten onto fitting.



**Pressure Test All
Hose Assemblies
Before Installation!**

