

Accessory Tubing Packages

These tubing packages are for use with Carrier Compatible Fittings on Carrier residential condensing units and heat pumps. Tubing may be mechanically connected or sweat connected to fittings. See condensing unit or heat pump Installation, Start-Up and Service Instructions or price pages for tubing package/unit usage and unit connection sizes.

Each tubing package contains a liquid line and an insulated suction line. Each is a soft copper line containing a refrigerant vapor charge and sealed at both ends with plugs. Tube sizes are shown in Table below.

Tubing Dimensions

TUBING PACKAGE	TUBING					
	Lgth (ft)	Liquid		Suction		
		OD (in.)	Tube End OD (in.)	OD (in.)	Tube End OD (in.)	
					Evap	Cond
38GC900031	10					
38GC900041	18	3/8	3/8	5/8	3/4*	5/8
38GS900221	25					
38GC900061	35	5/16				
38GC900071	10					
38GC900081	18					
38GC900091	25	3/8	3/8	3/4	3/4	3/4
38GC900101	35					
38GC900111	50					
38GC900191	50	1/4	3/8	5/8	3/4*	5/8

*For 5/8-in. evaporator connection, remove 3/4-in. sized tube end with tube cutter

NOTES:

1. Evaporator end on all suction tubes has 90° bend
2. Do not cut 3/8-in. OD liquid line to a length shorter than 10 feet. Do not cut 5/16-in. or 1/4-in. liquid line

INSTALLATION

Inspect the tubing for damage. Do not use damaged tubing if it appears that the damage will cause a leak or restriction.

Tubing runs between evaporator; condenser sections may be either concealed or exposed. Care must be taken to prevent nails or metal lath from puncturing or damaging the tubing. Isolate bare tubing from studs or joists by wrapping insulation around the tubing at the point of contact. Isolate exposed tubing runs by hangers similar to those shown in Fig. 1.

If the insulated suction line is run thru an area of high humidity, additional insulation may be required to prevent condensation on the outside surface of the insulation.

Do not run liquid line and suction line together without insulation.

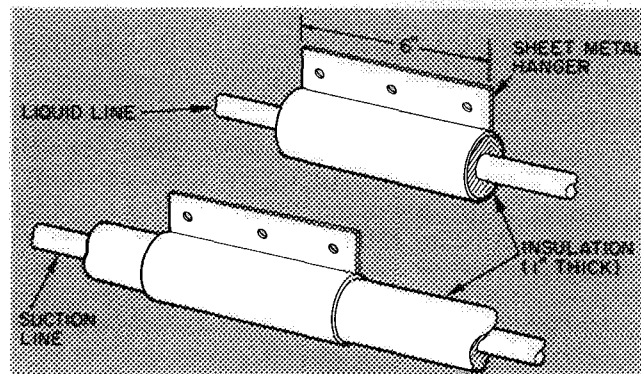


Fig. 1 — Refrigerant Line Hangers

CONNECTIONS

Connections at evaporator and condenser may be either mechanical (quick connect) or sweat. Do not cut 3/8-in. OD liquid line to a length shorter than 10 feet. Both ends of 5/16-in. OD and 1/4-in. OD liquid lines are swaged to fit unit liquid line fittings and must not be cut. If necessary, excess tubing may be coiled. *When accessory tubing package or evaporator section has been open for more than 15 seconds per connection, evacuate or purge the evaporator coil and tubing system (See Evacuate and Purge.)*

Compatible Fitting — Accessory Tubing Connection Procedure

MECHANICAL CONNECTION (Mate one set of connections at a time.)

1. Loosen locknut on compatible fitting one turn. Do not remove.
2. Remove plug and be sure seal ring is in the groove inside the compatible fitting.
3. Cut tubing (except 5/16-in. or 1/4-in. OD liquid line) to length at the unit.
4. Mark tube end for correct insertion depth (1-1/4 in. for 5/8-in. and 3/4-in. OD tubing; 3/4 in. for 5/16-in. and 3/8-in. OD tubing). Insert tube end into compatible fitting until it bottoms. Tube should be inserted at least as far as mark on tubing. Tube end must be inserted to correct depth for seal ring to seal. Keep tube bottomed while tightening locknut (Step 5).
5. Tighten locknut until it bottoms on back coupling flange.

- 6 If tubing or evaporator coil has been open for more than 15 seconds per connection, evacuate or purge the evaporator coil and tubing system. (See Evacuate and Purge.)

SWEAT CONNECTION

1. Remove locknut, rubber seal ring and Schrader core from valve.
2. Cut tubing (except 5/16-in. or 1/4-in. OD liquid line) to length at the condensing unit.
3. Insert tube end into compatible fitting. Wrap top and bottom of service valve with wet cloth to prevent damage to upper valve assembly. Solder with low-temperature (450 F) solder such as Allstate 430 or Stay Brite Silver Bearing Solder.
4. Evacuate or purge evaporator coil and tubing system.

Evacuate the evaporator coil and tubing system thru ports on the condensing unit service valves. Valves must be frontseated. Break vacuum with R-22 from *service drum*. Do not use condensing unit charge for this purpose. Cap service valve ports and backseat the valves.

CAUTION: Condensing unit service valves are frontseated at factory. Valves require a minimum amount of force to frontseat or backseat. Do not exceed 10 ft-lb torque.

Purge the evaporator coil and tubing system with R-22 thru the condensing unit liquid line service valve port and out the condensing unit suction line service valve port. Service valves must be frontseated during purging. Use R-22 from service drum. Do not use condensing unit charge for purging. After purging, cap service valve ports and backseat valves.

SERVICE

Compatible Fitting — Accessory Tubing Connection Repair.

LEAKING MECHANICAL CONNECTION

Frontseat condensing unit service valves and relieve refrigerant pressure in tubing. Back locknut off compatible fitting onto tube. Cut fitting between threads and seal ring head as shown in Fig. 2. Remove tubing section remaining in threaded portion of fitting. Discard locknut.

Clean, flux, and insert new tube end into remaining portion of compatible fitting. Wrap top and bottom of service valve with wet cloth to prevent damage to upper valve assembly. Heat and apply low-temperature (450 F) solder.

Evacuate or purge evaporator coil and tubing system.

LEAKING SWEAT CONNECTION — Frontseat service valves and relieve refrigerant pressure in tubing. Clean and flux area around leak and apply low-temperature solder.

Evacuate or purge evaporator coil and tubing system.

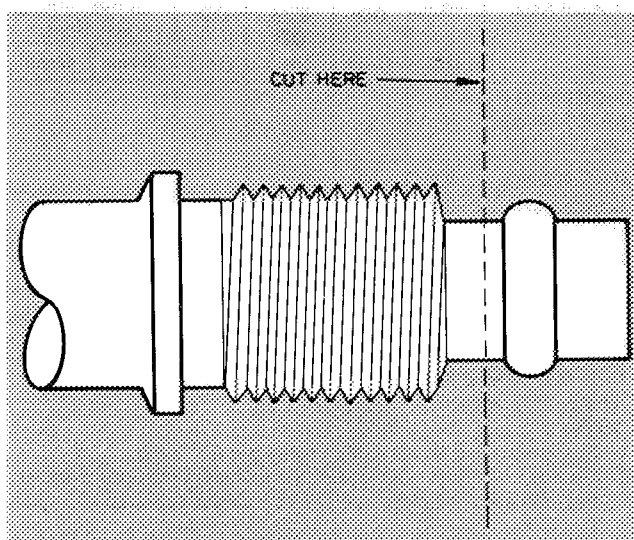


Fig. 2 — Repair of Mechanical Connection

For replacement items use Carrier Specified Parts.

Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.