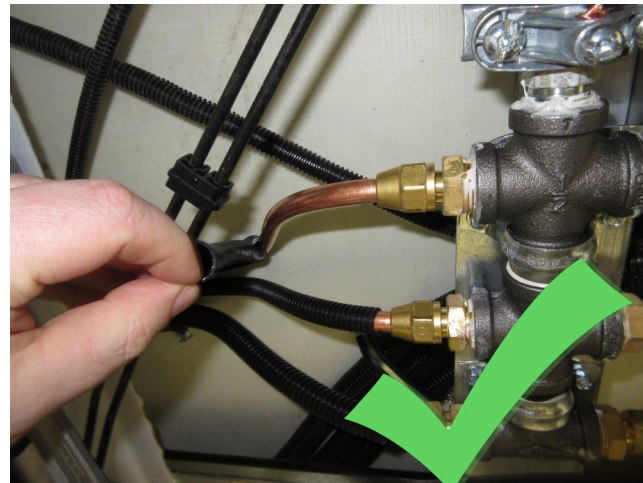


# SOP02535

## QAAR 9599 Inspect and repair propane supply lines for twisting or kinks

Department: 17, 32  
People Required: 1  
Time to Complete: Inspection: 5 min— Repair: varies  
Date Created: Jan. 24, 2020  
Date Revised: Rev #:  
Created by Initial: GK806 Verified: JW1117



Peel back 150mm (6 inches) of the plastic loom to inspect the copper tubing at the connection point to the manifold.

1



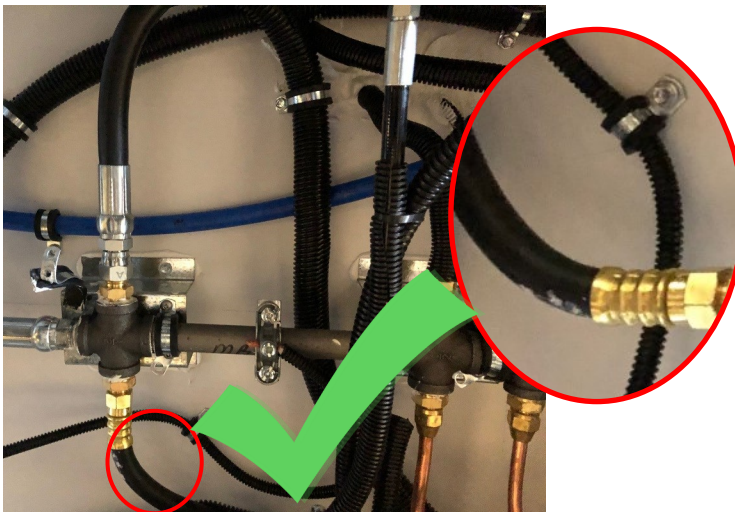
If the copper tubing is twisted or kinked it needs to be repaired or replaced. Only LPG qualified RV Technicians are approved to repair or replace copper tubing.

2



Wherever the propane hose makes a 90° corner, pull back the plastic tubing at the split

3



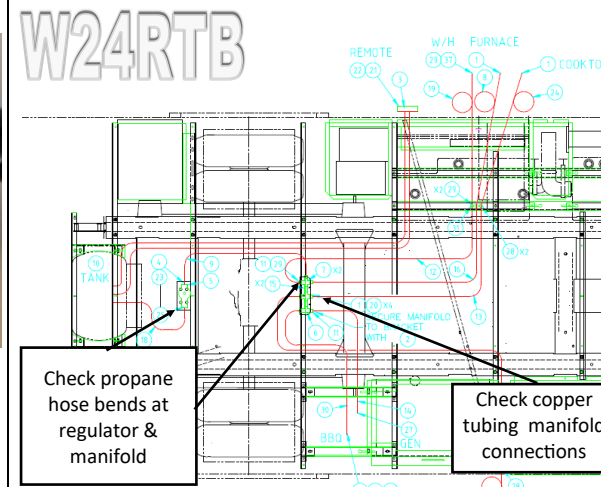
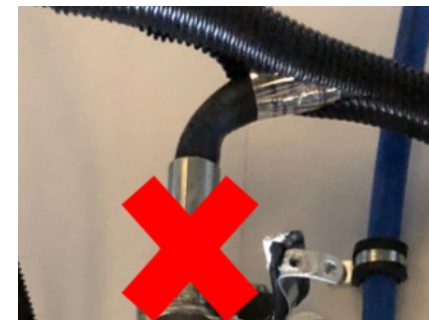
A bend without a kink is considered acceptable with no further action required.

4



Wherever the propane hose bends, and kinks a repair will be considered necessary. Only LPG qualified RV Technicians are approved to repair or replace copper tubing.

5



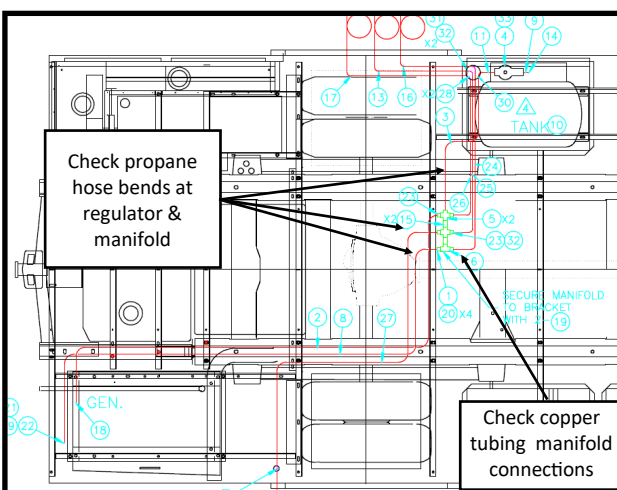
Check hose bends for:

- ◇ #18 tank to regulator
- ◇ #9 regulator to manifold
- ◇ #30 manifold to BBQ
- ◇ #22 & 21 Propane Fill to Tank

Check copper tubing 150mm (6 inches) from connection for:

- ◇ Copper fittings at Manifold.

6



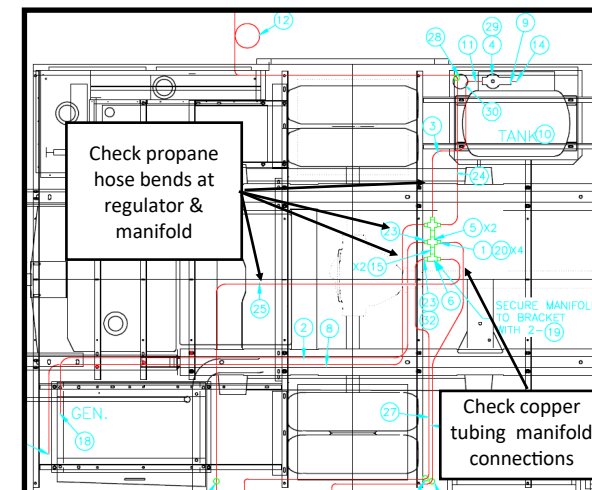
Check hose bends for:

- ◇ Tank to manifold
- ◇ Manifold to Generator
- ◇ Manifold to Water Heater
- ◇ Manifold to BBQ

Check copper tubing 150mm (6 inches) from connection for:

- ◇ Copper fittings at Manifold.

7



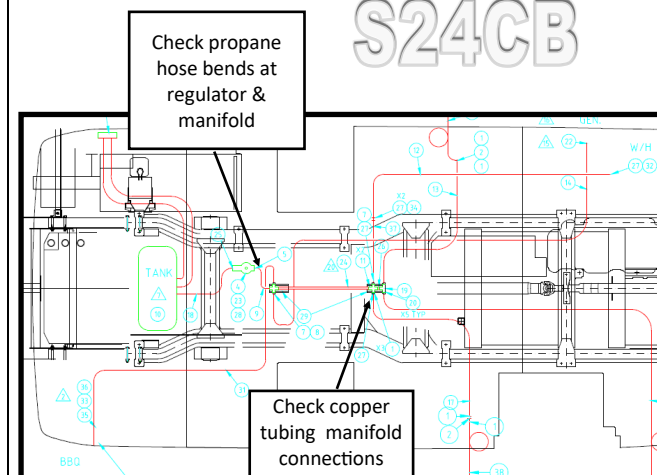
Check hose bends for:

- ◇ Tank to manifold
- ◇ Manifold to Generator
- ◇ Manifold to Water Heater
- ◇ Manifold to BBQ

Check copper tubing 150mm (6 inches) from connection for:

- ◇ Copper fittings at Manifold.

8



Check hose bends for:

- ◇ Tank to manifold
- ◇ Manifold to Generator
- ◇ Manifold to Water Heater
- ◇ Manifold to BBQ

Check copper tubing 150mm (6 inches) from connection for:

- ◇ Copper fittings at Manifold.

9

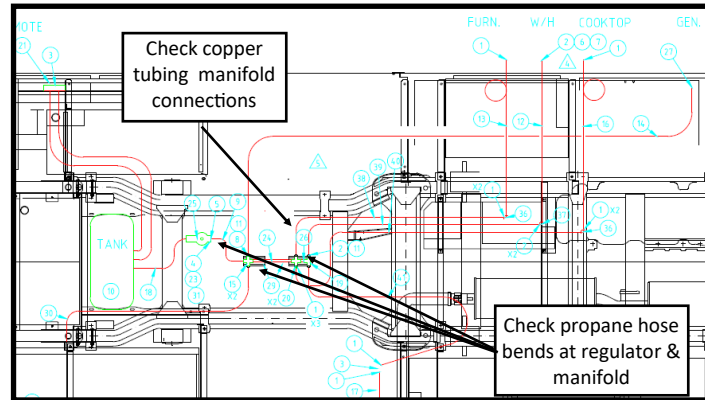


# SOP02535

## QAAR 9599 Inspect and repair propane supply lines for twisting or kinks

Department: 17, 32  
 People Required: 1  
 Time to Complete: Inspection: 5 min— Repair: varies  
 Date Created: Jan. 24, 2020  
 Date Revised: Rev #:  
 Created by Initial: GK806 Verified: JW1117

### U24RL



Check hose bends for:

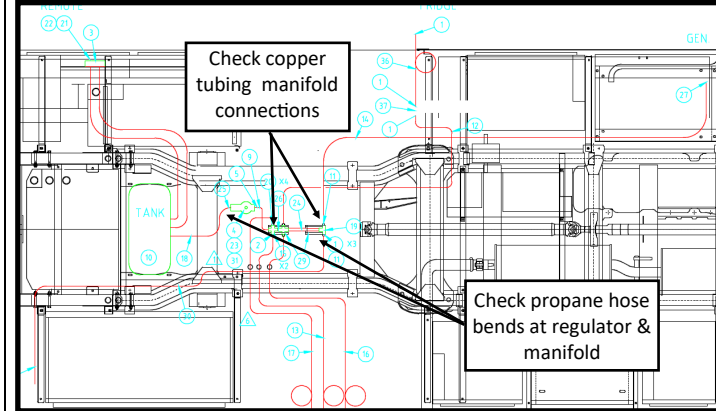
- ◇ Tank to manifold
- ◇ Manifold to Generator
- ◇ Manifold to Water Heater
- ◇ Manifold to BBQ

Check copper tubing 150mm (6 inches) from connection for:

- ◇ Copper fittings at Manifold.

10

### U24CB



Check hose bends for:

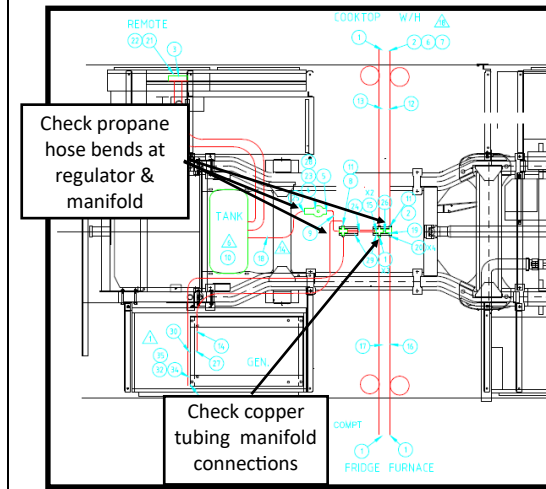
- ◇ Tank to manifold
- ◇ Manifold to Generator
- ◇ Manifold to Water Heater
- ◇ Manifold to BBQ

Check copper tubing 150mm (6 inches) from connection for:

- ◇ Copper fittings at Manifold.

11

### U24MB



Check hose bends for:

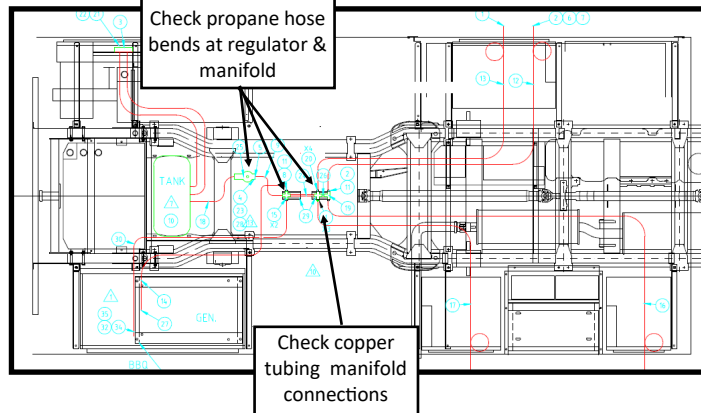
- ◇ Tank to manifold
- ◇ Manifold to Generator
- ◇ Manifold to Water Heater
- ◇ Manifold to BBQ

Check copper tubing 150mm (6 inches) from connection for:

- ◇ Copper fittings at Manifold.

12

### U24IB/TB



Check hose bends for:

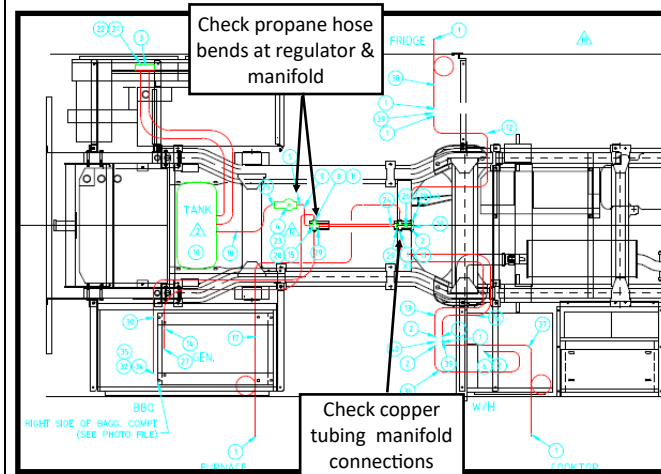
- ◇ Tank to manifold
- ◇ Manifold to Generator
- ◇ Manifold to Water Heater
- ◇ Manifold to BBQ

Check copper tubing 150mm (6 inches) from connection for:

- ◇ Copper fittings at Manifold.

13

### U24FX



Check hose bends for:

- ◇ Tank to manifold
- ◇ Manifold to Generator
- ◇ Manifold to Water Heater
- ◇ Manifold to BBQ

Check copper tubing 150mm (6 inches) from connection for:

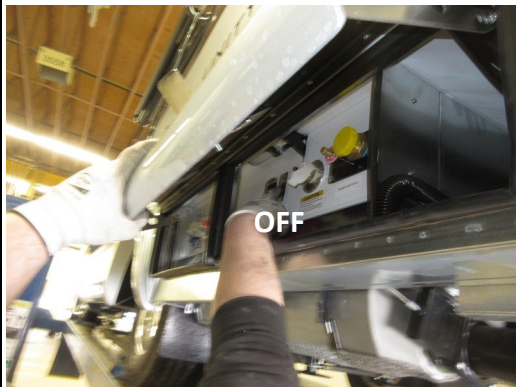
- ◇ Copper fittings at Manifold.

14



Please contact Leisure Travel Vans Warranty Service at 1-877-992-9906 for pre-approval before initiating replacement of copper hose or tubing.

15



Before making any repairs make sure the propane tank solenoid (or tank valve on W24MB/FTB) is closed (OFF).

16

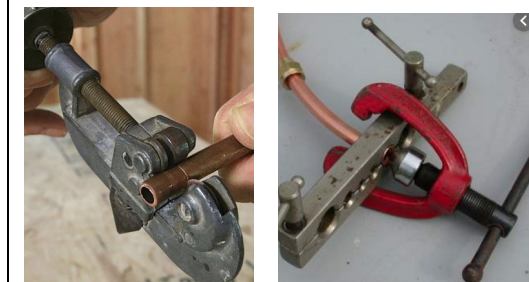


Use the BBQ hook up to burn off any propane still in the lines. The stove top can also be used, but may leave a small amount of propane in the lines.

17

### Copper tubing repairs:

Only LPG qualified RV Technicians are approved to repair or replace copper tubing.



- Twisted tubing and kinks within 50- 75mm (2-3 inches) of the manifold should be repairable by cutting and re-flaring the copper line.

18



# SOP02535 QAAR 9599 Inspect and repair propane supply lines for twisting or kinks

Department: 17, 32  
People Required: 1  
Time to Complete: Inspection: 5 min— Repair: varies  
Date Created: Jan. 24, 2020  
Date Revised: Rev #:  
Created by Initial: GK806 Verified: JW1117

## Propane Hose Repair



Remove the clamps from the kinked/twisted hose to relieve pressure.

19



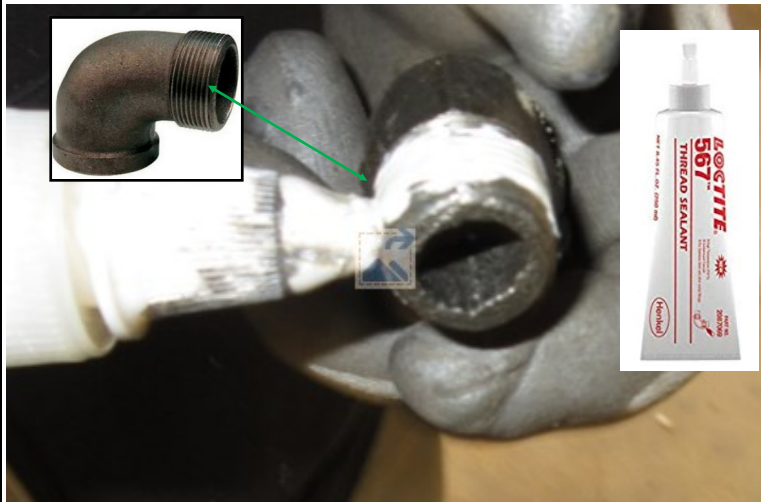
**Regulator to Manifold Hose:**  
With a wrench on each fitting remove the hose from the regulator. This removes pressure from the other side of the hose.

20



Remove the hose from the Manifold with a wrench on each fitting remove the hose from the regulator. This removes pressure from the other side of the hose.

21



Apply Loctite 567 Thread Sealant (129-3251) to the male threading of a Black Iron Pipe 90° 1/2 MPT X FPT street elbow.

22



Thread in street elbow to face the direction the hose was routed.

23



Apply Loctite 567 Thread Sealant (129-3251) to the threading of the hose.

24



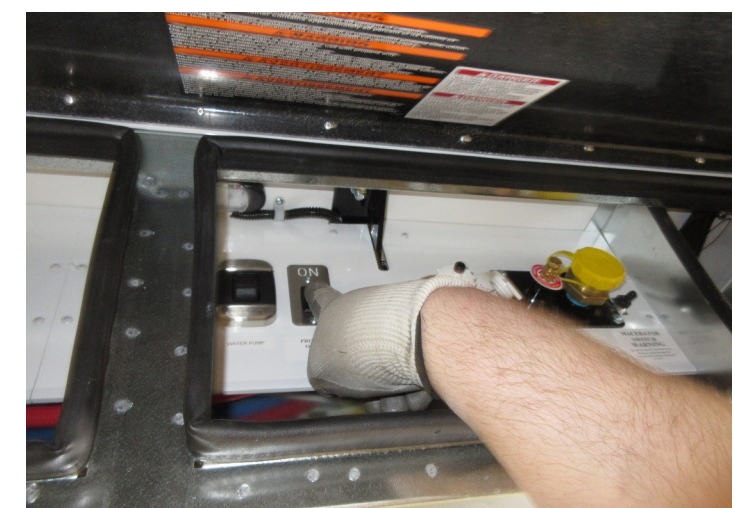
Thread hose into street elbow. Tighten with a wrench on the hose and on the elbow/manifold to provide support.

25



Re-attach the other end of the hose to the regulator with two wrenches.

26



After all hoses and pipes have been assembled; turn propane solenoid (all but W24MB/FTB) on.

27

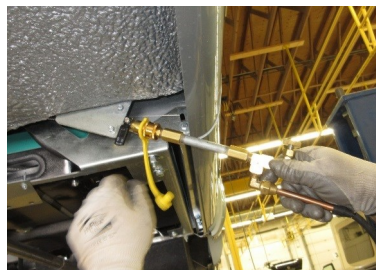




# SOP02535

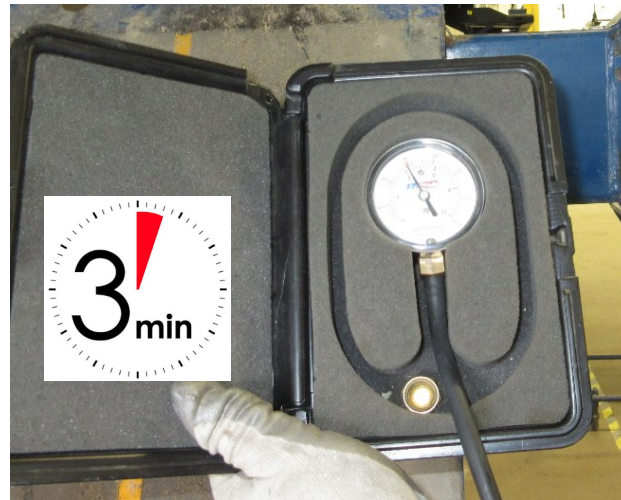
## QAAR 9599 Inspect and repair propane supply lines for twisting or kinks

Department: 17, 32  
People Required: 1  
Time to Complete: Inspection: 5 min— Repair: varies  
Date Created: Jan. 24, 2020  
Date Revised: Rev #:  
Created by Initial: GK806 Verified: JW1117



Connect a Manometer gauge to the BBQ hookup. Bleed down the system to 9 inches water column pressure to equalize the pressure on the input line and the output line of the regulator. Repeat as required to allow the pressure to stabilize before the test begins i.e. gauge needle rising indicates unstable.

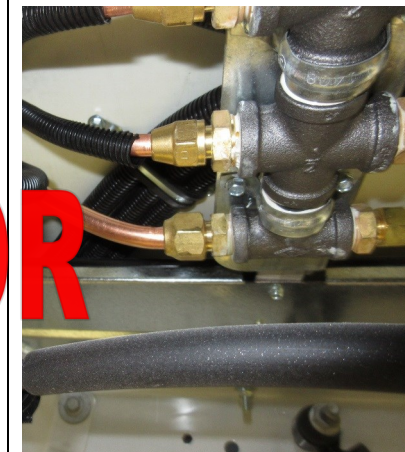
28



There shall be no drop in pressure within 3 minutes. If there is a drop in pressure the leak must be located and repaired. Check for leaks using approved solution. Retest the system.

OR

29



Use an approved leak testing solution, (such as Cal-Blue) and spray each fitting that was removed.

Any bubbles indicate a failure.

30



After it has been confirmed that the propane lines are leak free, reinstall all the hose and tubing clamps into the same holes that they were removed from.

31

32

33

34

35

36