## PREVOST

# **Instruction Sheet**

# **IS-14152**

# Road Side *and* Workshop Instructions for Replacing 040949 6mm DEF Hose to a 4mm ID Hose.

### X Series from B-5002 up to G-5924

#### MATERIAL

Kit #IS14152 includes the following parts:

Part No.	Image	Description	Qty
041123		HEATED UREA HOSE, 4MM	1
502638		WASHER FL .312X.734X.065	5
504534		GROMMET .875 ID X 1.250 GROOVE DIA X.187 GROOVE WIDTH X.562 THK X 1.625 OD	2
504610		RIVET, MAGNA-LOK 1/4" DIA X 5/8" LG SS	5
504637		CABLE TIE 3/16" X 13"	10
506205	2	SPLIT INSULATION TUBE 5/8" X 1/2" X 72"	2
507383	The second	TIE MOUNT, ANGLE 0.375" HOLE	5
507664		CABLE TIE 3/16" 11" / DOUBLE LOOP HEAD	10
5001113		NUT, HEX JAM NYRT 5/16-18	5
N32553		SCREW, CAP HEX 5/16-18X3/4 FT SS	5
IS-14152		Instruction Sheet	1
FI-14152		Feuille d'instructions	1

Other parts that may be required:

Part No.	Description	Qty
680532	SEALANT SIKA #221 / GREY / 310ml CARTRIDGE	1

NOTE

Material can be obtained through regular channels.

### **SPECIAL TOOLS**



"UNIBIT" STEP DRILL, DOUBLE FLUTE w/ 1.25" DIMENSION.

MILWAUKEE: 48-89-9205 OR EQUIVALENT



Park vehicle safely, apply parking brake, stop engine and set battery master switch(es) to the OFF position prior to working on the vehicle.

#### OVERVIEW

This instruction sheet proposes two methods:

#### Method A WORKSHOP REPLACEMENT:

This is the prefered method. Use it where safe lifting equipment is available. Hose is routed inside the vehicle frame. This method requires less parts.

#### Method B ROAD-SIDE REPLACEMENT:

To be used in situations where vehicle is repaired with limited facilities. Use it where safe lifting equipement is not available. Hose is routed <u>above drive and tag axle</u> wheels.

#### A) WORKSHOP REPLACEMENT METHOD

New hose #041123 will be routed from the DEF dosing valve above the DPF then down and forward to the DEF pump in the condenser compartment.

(Refer to figure 1) Routing above the rear axles will follow the PVC tubes (A), up to the primary tank (B), then under the frame rail between the wheel mud guard and wall (C), through the condenser compartment wall (D), and finally to the DEF pump (E).

Images in this procedure show recent frame configurations. Your vehicle may present some variations.



Figure 1 :Hose routing Side view

A1. (Refer to figure 2) From the dozing valve on the DPF, follow path downwards A as shown on fig.2 then proceed to the front of the bus, loosely securing to the existing hoses, B progressing towards the cable and hose management passage C.



A2. Re-use insulation. If required install new insulation #506205

A3. Open both service hatches inside the coach floor. You may have to remove the rear cross seat to access the "engine" service hatch depending on vehicle configuration.

From the cable management passage C, loosely attach hose below the PVC tubes D with cable ties #507664, progressing forward towards the primary tank.



#### FIGURE 3

A4. Above Primary tank, let the hose slip down the front right side of the tank. (Fig 4) Then pull down and under the frame. (Fig. 5)





FIGURE 4

FIGURE 5

**A5.** Drill a 1/8" pilot hole at the indicated location on the aft wall of the condenser compartment (Fig. 6)

#### A6.

Using the step drill, drill a **1.25**" diameter hole at the same location.

#### Remove any sharp edges and burrs.

Slip grommet #504534 on hose and install in hole.

Secure hose and grommet with # 680532 Sika Grey sealant.

Connect to DEF pump.

- **A7.** Confirm proper operation of all affected systems.
- **A8.** Finalize cable tie installation by tightening each one.
- A9. Clear all active and inactive DTC's



FIGURE 6 : DRILL 1.25 " HOLE

#### **B) ROADSIDE REPLACEMENT METHOD**

Images in this procedure show recent frame configurations. Your vehicle may present some variations.



FIGURE 7 : OVERVIEW

**B1.** On the aft wall of the condenser compartment, (A, Fig. 7)

Drill a pilot hole of proper dimension at the indicated location. (Fig. 8)

Drill a 1 1/4in. hole with the step drill. (Fig. 8)

Remove sharp edges and burrs.

Install grommet # 504534 over hose and install.

Seal with grey Sika #680532.



FIGURE 8 : WALL DRILLING LOCATION

**B2.** Drill a pilot hole in the drive axle housing skirt support (Fig. 10)

From the wheel side, using the step drill, drill a 1-1/4 hole in the plastic skirt and support. (Fig.10)

Remove sharp edges and burrs.

Pull hose from condenser compartment.

Install a grommet #504534 on the hole.



FIGURE 9



FIGURE 10 SKIRT SCREW LOCATION



FIGURE 11 507383 CABLE TIE SUPPORTS MAY BE INSTALLED WITH RIVETS OR SCREWS.

**B3.** Install the cable tie supports #507383 inside the longitudinal channel closest to the vehicle frame. (Fig. 12)

Clean bearing surface before installation.

#### B4. Installing the cable tie supports.

Riveting is the preferred method.

However, if you do not have access to a air powered riveter, proceed to B6, SCREWING.

**B5. RIVETING**: Drill a 1/4" hole and install the supports at 1/2" from the channel bottom edge with #504610 rivets at locations shown on Figures 7 & 11. (Fig. 12, 13)

Be careful not to pierce the plastic insulation behind the channel.

Do not tighten the hose cable ties yet!



FIGURE 12 507383 CABLE TIE SUPPORT LOCATION



FIGURE 13 RIVETED SUPPORT

**B6. SCREWING**: If riveting is not possible, the supports may be installed with #N32553 screws, #502638 washers and #5001113 nylon jam nuts. (Fig. 14)

Drill a 5/16" diameter hole at 1/2" from the channel bottom edge (Figure 12).

Be careful not to pierce the plastic insulation behind the channel.

Place the holes at locations shown on Figures 7 & 11



FIGURE 14 SCREW JOINT

**B7.** Attach to the hose management support (If present) along with tag axle lift chamber hose. (Fig 15)



FIGURE 15

**B8.** Use a slit silicone hose to pass through the shock support. (Fig 16 & 17)

Attach to the shock support with cable ties.



FIGURE 16



FIGURE 17

**B9.** Open the floor hatch and if you have the opportunity you may open also the "engine "service hatch.

You may have to remove the rear cross seat to access the "engine" service hatch depending on vehicle configuration.

Route hose under the frame rail E, then in the cable and hose tunnel leading to the engine compartment F and towards the curb side of the engine compartment G.



FIGURE 18

- **B10.** Route up to urea dosing valve and connect. (Fig. 19)
- B11. Confirm proper operation
- **B12.** Finalize cable tie installation by tightening each one.
- B13. Clear all active & inactive DTC's.

Re-use insulation. If required install new insulation #506205



### PARTS / WASTE DISPOSAL

Discard waste according to applicable environmental regulations (Municipal/State[Prov.]/ Federal)