# Instruction Sheet

IS-02054

## RELOCATION OF WINDSHIELD DEFROSTER FRESH AIR INLET ON XL2 COACHES

### **MATERIAL**

Kit #373995 includes the following parts:

Part No.	Description	Qty
373930	Flange, Mounting	1
373996	Flange, Mounting	1
373997	Screen	1
476156	Plate, Cover	1
476159	Foam Rubber, Air Inlet	1
504235	Clamp, Hose	2
509815	Wire Clamp, Quick Mounting (Fir Tree Base)	1
373955	Hose, Flexible 500mm	1
287424	Rod	1
780652	Latch, R.H. with grease fitting	1
287423	Support, Latch	1
IS-02054	Instruction Sheet	1
FI-02054	Feuille d'instructions	1

#### **PROCEDURE**

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

- 1. Lower front bumper to access spare wheel compartment.
- 2. Install foam rubber (476159) inside former air inlet then fix cover plate (476156) using rivets in order to block opening (refer to figure 2).
- 3. Remove fresh air duct (refer to figure 1).
- 4. Properly install and fix mounting flange (373996) onto fresh air box former opening using 4 screws or rivets.

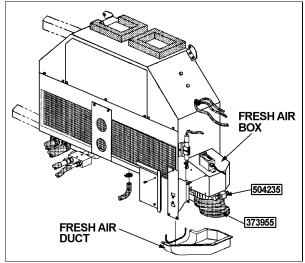
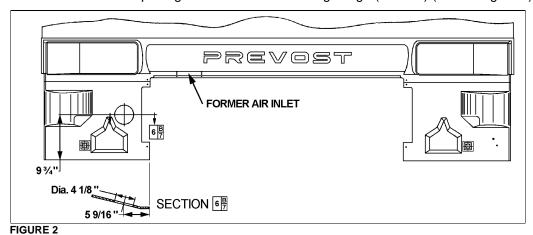
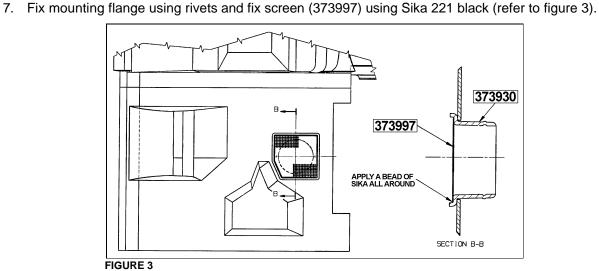


FIGURE 1

- 5. Install flexible hose (373955) onto the mounting flange (373996) and secure hose using hose clamp (504235) (refer to figure 1).
- 6. Cut a 4 1/8 inch diameter opening for the air inlet mounting flange (373930) (refer to figure 2).



7 5 (0.70007) (0.70007)



8. Install remaining hose clamp to secure flexible hose onto the flange (refer to figure 4).

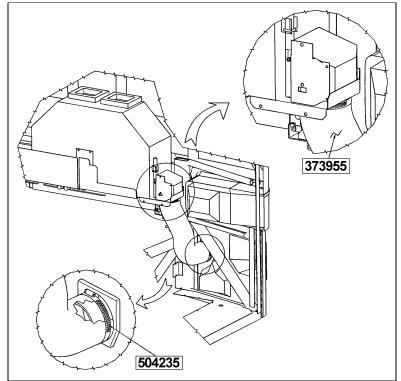


FIGURE 4

- 9. In case of interference between the flexible hose and the existing front bumper R. H. side latch, remove the latch and support (287423). Install new latch support then the latch (refer to figure 5 & 6). Also replace actuating rod with rod #287424.
- 10. Weld latch support as per the following parameters:

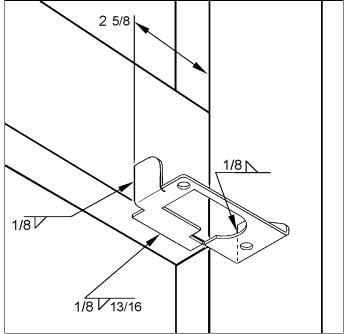


FIGURE 5

#### PRECAUTIONS TO BE OBSERVED BEFORE WELDING

Caution: Cut off battery power in main power compartment using battery safety switch.

1. Disconnect "Ground" cables from battery terminals.

Note: Disconnect "Ground" cables only.

- 2. Disconnect all electronic control modules (radio & control head, HVAC, TTLT cluster Volvo). You must also disconnect alternator module located in front service compartment.
- 3. Disconnect three wiring harness connectors from ECM (Electronic Control Module). The ECM is mounted on the starter side of the engine.
- 4. For vehicles equipped with an Allison automatic transmission, disconnect three wiring harness connectors from ECU (Electronic Control Unit). The ECU is located in front service compartment.
- 5. For vehicles equipped with WCL system, disconnect electronic controller connector.
- For vehicles equipped with ABS (Anti-Lock Brake System), disconnect wiring harness connectors from ABS Electronic Control Unit. The ABS Electronic Control Unit is located in front service compartment.
- 7. Cover electronic control components and wiring to protect from hot sparks, etc.
- 8. Do not connect ground clamps to electronic control components.
- 9. Do the appropriate welding on vehicle.

Caution: Position welding machine ground clamp as close as possible to the work.

- 10. When welding is complete, reconnect ECM, automatic transmission and ABS electronic control units, etc.
- 11. Terminate by reconnecting "Ground" cables to battery terminals.

#### STEEL - STEEL WELDING

**Caution:** Before welding, disconnect electronic modules and battery terminals.

**Warning:** Welding surfaces must be free of scale, slag, rust, paint, grease, humidity or other foreign material that would render welding impossible.

**Warning:** Only a qualified and experienced person must do welding.

- ? FCAW (Flux Cored Arc Welding) process;
- ? Electrode wire conforms to A5.20 AWS (American Welding Society) specifications;
- ? E4801T-9-CH, type electrode wire with 0,045" diameter (1,14 mm);

Material Thickness	Voltage	Current	Wire Feed Rate	Shielding Gas
1/8" to ½"	26 ± 2 volts	260 Amps	450 ipm. approx.	75% argon – 25% CO2 or 100% CO2

If necessary and with great care to prevent perforating the material, it is possible to use a conventional electric arc welding machine according to the following specifications:

- ? SMAW (Shielded Metal-Arc Welding) process :
- ? Welding rod conforms to A5.1 of AWS (American Welding Society) specifications; E 7018 type welding rod with 1/8" diameter (3,2 mm).
- ? Current: 100 amperes to 150 amperes; optimum at 120 amps.

It is important to grind weld bead starts and stops and also to grind arc strikes from surfaces.

#### STEEL - STAINLESS STEEL OR STAINLESS STEEL - STAINLESS STEEL WELDING

Caution: Before welding, disconnect electronic modules and battery terminals.

**Warning:** Welding surfaces must be free of scale, slag, rust, paint, grease, humidity or other foreign material that would render welding impossible.

Warning: Only a qualified and experienced person must do welding.

- ? GMAW (Gas Metal-Arc Welding) process;
- ? Welding wire conforms to AWS (American Welding Society) A5.9 specifications;
- ? 308LSi type welding wire with 0.035" diameter (0,9 mm);

#### STEEL - STAINLESS STEEL WELDING

Steel Thickness	SS Thickness	Voltage	Current	Wire Feed Rate	Shielding Gas
Less than 1/8"	Any type	20±1.5 volts	130±15 Amps	290 ipm approx.	90% He, 7.5% Ar, 2.5% CO2
1/8" and more	Any type	22±1.5 volts	160±15 Amps	330 ipm approx.	90% He, 7.5% Ar, 2.5% CO2

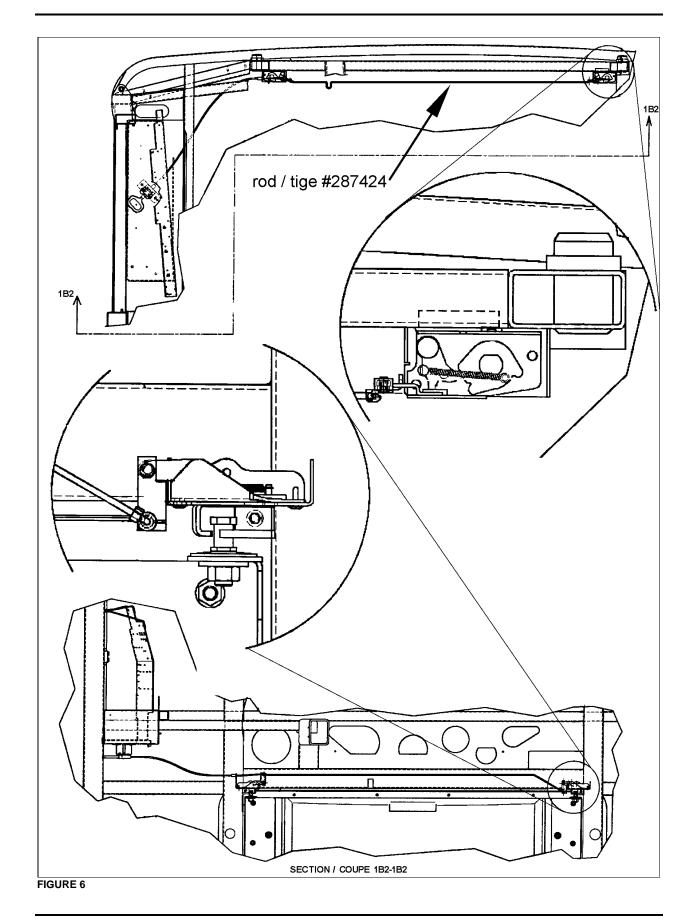
#### STAINLESS STEEL - STAINLESS STEEL WELDING

SS Thickness	Voltage	Current	Wire Feed Rate	Shielding Gas
Any type	20 ± 1.5 volts	130 ± 15 Amps	290 ipm approx.	90% He – 7.5% Ar, 2.5% CO2

If necessary and with great care to prevent perforating the material, it is possible to use a conventional electric arc welding machine according to the following specifications:

- ? SMAW (Shield Metal-Arc Welding) process;
- ? Welding rod conforms to AWS (American Welding Society) A5.4 specifications; 308L-17 type welding rod with 3/32" diameter (2,4 mm);
- ? Current: 50 amperes to 90 amperes, optimum at 60 amperes.

It is important to grind weld bead starts and stops and also to grind arc strikes from surfaces.



IS-02054 / Page 6/6