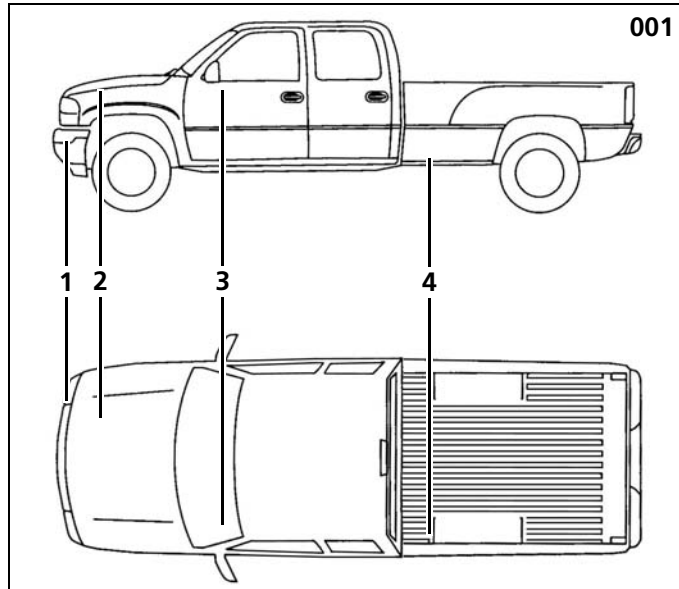


Thermo Top



001

Nissan Titan / Armada

2003 - 2004 - 5.6 Liter V8 (Gasoline)

Special instructions for these models

Part locations may differ slightly dependent on the vehicle model.

Legend

- 1 BlueHeat Coolant Heater, Exhaust Muffler, and Combustion Air Intake Silencer
- 2 Fuse Holder and Resistor
- 3 Timer Control
- 4 Fuel Pump (Located between right frame rail and vehicle exterior on the Armada.)

Special Tools

- Hose Clamping pliers
- Torque Wrench (1/4' Drive)

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- Improper installation or repair of Webasto heating and cooling systems can cause fire or the leakage of deadly carbon monoxide leading to serious injury or death.
- Installation and repair of Webasto heating and cooling systems requires special Webasto training, technical information, special tools and special equipment.
- NEVER attempt to install or repair Webasto heating or cooling system unless you have successfully completed the factory training course and have the technical skills, technical information, tools and equipment required to properly complete the necessary procedures.
- ALWAYS carefully follow Webasto installation and repair instructions and heed all WARNINGS.
- Webasto rejects any liability for problems and damage caused by the system being installed by untrained personnel.

Parts List

| Quantity | Part | Part Number |
|----------|------------------|-------------|
| 1 | Heater Kit | 5000516C |
| 1 | Installation Kit | 5000907B |

Vehicle Information

| Manufacturer | Model | Year | Engine Type |
|--------------|--------|-------------|-----------------------|
| Nissan | Titan | 2003 - 2004 | 5.6 Liter V8 Gasoline |
| Nissan | Armada | 2003 - 2004 | 5.6 Liter V8 Gasoline |

Foreword

This installation requires special expertise from a Webasto training course to install a Webasto Thermo Top heater, which means that it may only be installed by a specially trained workshop or dealership. Webasto cannot accept any liability for faults and damage caused by the system being installed by untrained personnel.

Scope and Purpose

These non-binding installation instructions are intended to support authorized Webasto trained distributors, dealers and personnel in the installation of the Thermo Top BlueHeat Coolant Heaters.

These non-binding installation instructions apply to the vehicles listed on the front cover of this installation document unless technical modifications on the vehicle influence the installation, excluding all liability claims. Depending on the version and equipment in the vehicle, changes may be required to the installation work set out in these installation instructions. In any event, however, the directives in the "installation manual" and "operating manual" must be followed. Acknowledged engineering conventions must be observed for the installation work.

ATTENTION

All relevant state and provincial licensing regulations if any, governing the installation and use of auxiliary heating devices must be observed!



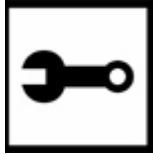
CAUTION

Location of heater, installation of coolant lines, fuel system and components, wiring and control devices are important for proper operation. Failure to comply with the installation instructions provided may result in poor operation or damage to heater and vehicle components.



Symbol Identification

Symbols that define sections in manual



Mechanical Preparation



Fuel



Electrical



Exhaust



Coolant



Combustion Air Intake

General Symbol Descriptions



Warning



Refer to Webasto or Manufacturer Manual



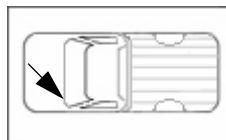
Caution



Attention



Flammable or Combustible



Part Location on Vehicle

General References

- Bare body parts, for example around drilled holes, must be treated with anti-corrosive coating.
- Secure hoses, cables and wiring harnesses with cable ties and fit protective hoses around them at chafing points.
- Fit edge protectors (opened fuel hose) to sharp edges.

Preparation

Heater Kit

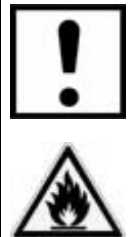
- Verify and identify all contents of kit.

Vehicle

- Verify fuel content in tank.

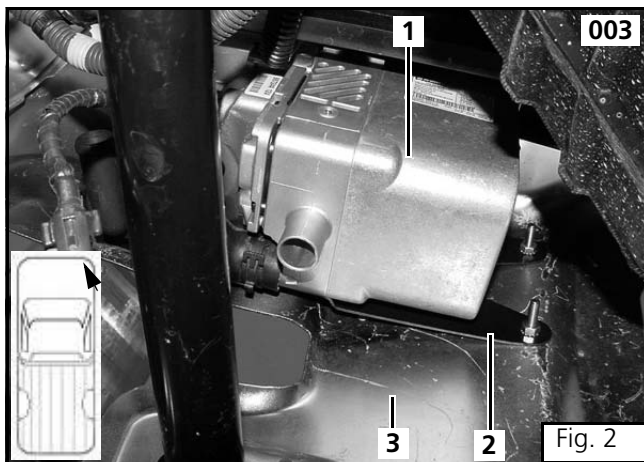
CAUTION

*For safety reasons due to weight of fuel and tank, it is recommended there be no more than 1/4 tank of fuel present.
If fuel quantity is greater than 1/4 of capacity, make provisions to reduce quantity of fuel.*



Heater Installation Site

- (1) Webasto Auxiliary Coolant Heater Mounting Location (Behind the right bumper)



- (1) Webasto Auxiliary Coolant Heater
- (2) Heater Mounting Bracket
- (3) Inside Right Bumper



Installation

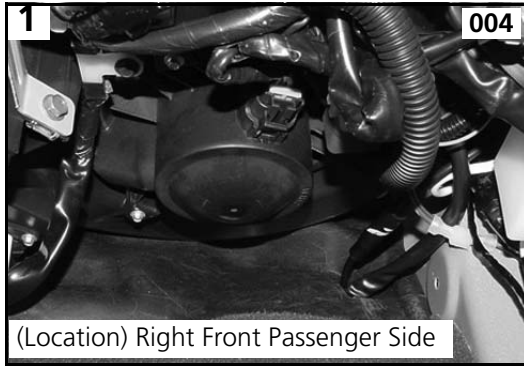
Electrical - Overview

ATTENTION

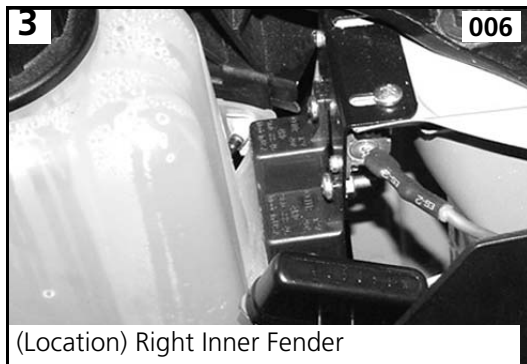
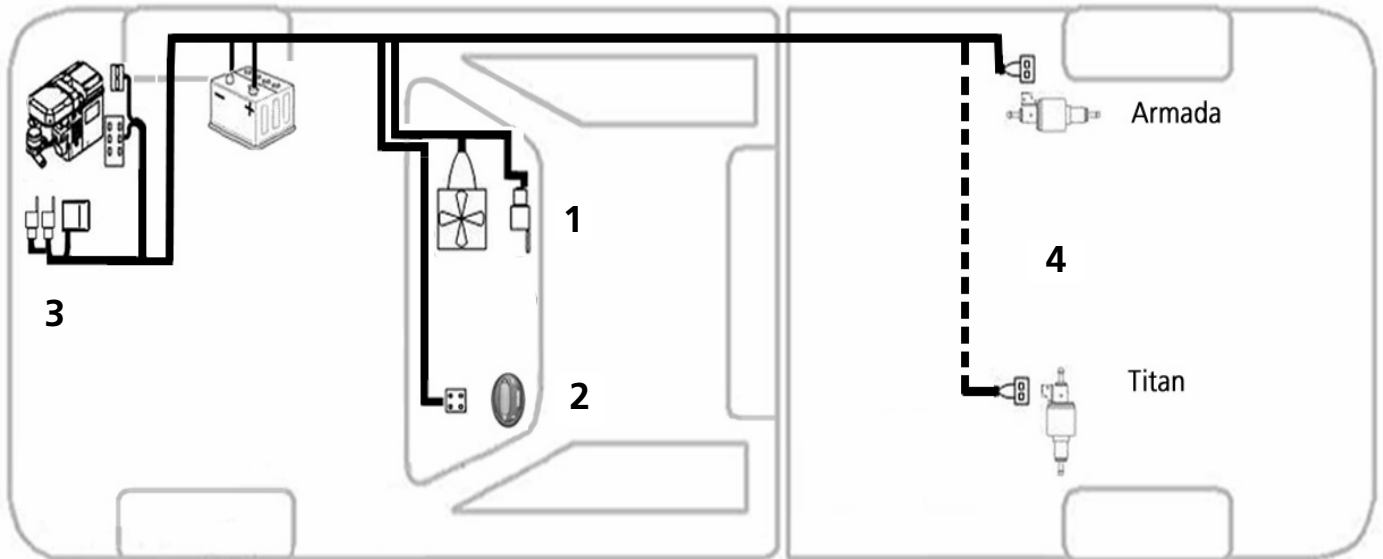
The timer control location is a recommendation only. Please consult with the customer before mounting.



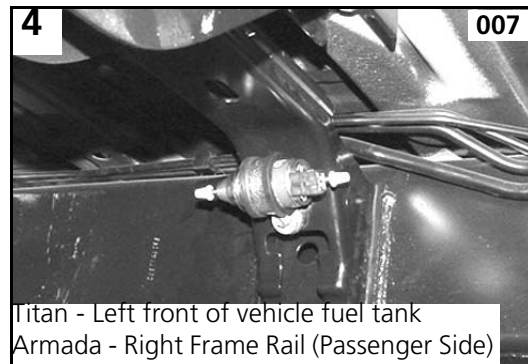
Vehicle HVAC Blower Motor



Timer Control Location



Webasto Fuse Block and Relay



Webasto Heater Fuel Pump

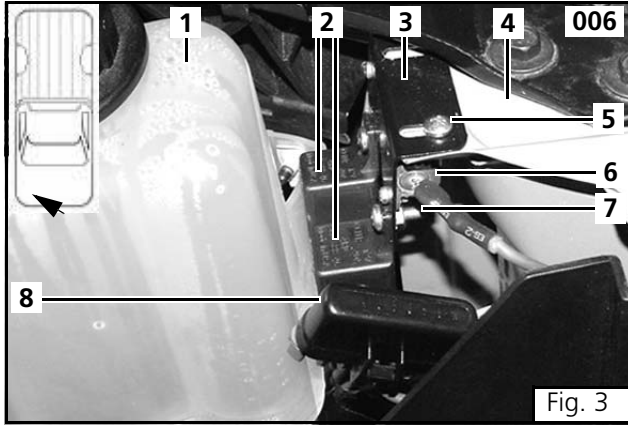


Fig. 3

Electrical Harness

ATTENTION

Cut wire tie holding negative-side blower harness (with relay K3) from main harness and set aside.

- (1) Coolant Surge Tank
- (2) Relays K1 and K2
- (3) Webasto Electrical Mounting Bracket
- (4) Vehicle Body (Drill 5.5 mm Hole)
- (5) Pan Head Screw 10-32x5/8", Nut 10-32
- (6) Resistor (mounted to back of bracket with two M3x10 screws and M3 keep nuts)
- (7) Pan Head Screw 10-32x5/8", Nut 10-32
- (8) Webasto Fuse Holder

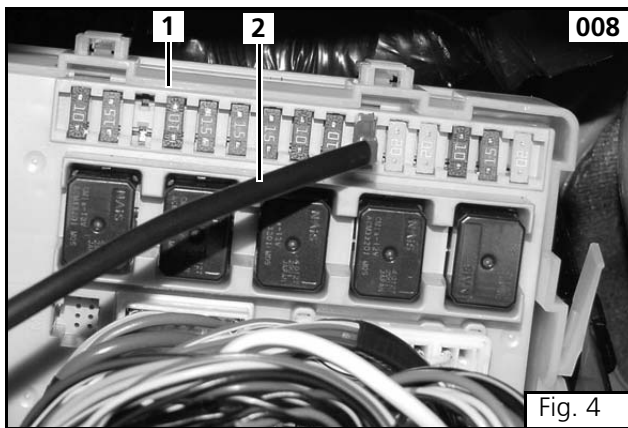


Fig. 4

Fuse Tap Connection (Ignition On) - Relay K1

- (1) Fuse Panel
- (2) Fuse Tap "Ignition On" Wire (Blue)

Using the supplied fuse tap connector, tap into the "Fused" side of a "Ignition ON" fuse as shown.

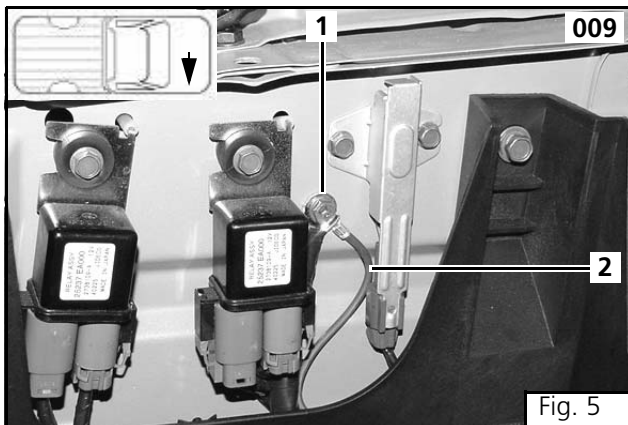


Fig. 5

Harness Ground Installation

- (1) Existing Vehicle Ground (Right Inner Fender)
- (2) Webasto Heater Control Harness Ground

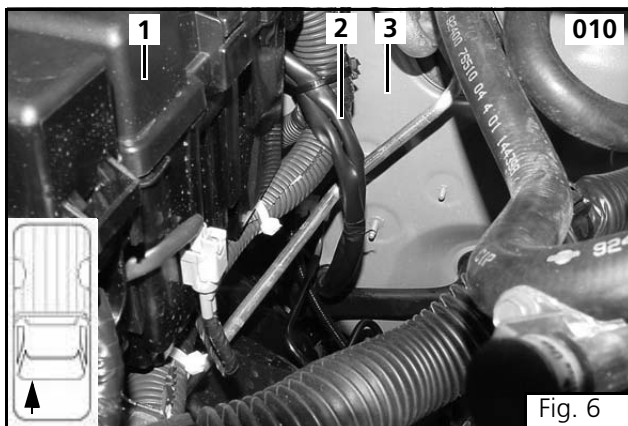


Fig. 6

Harness Routing

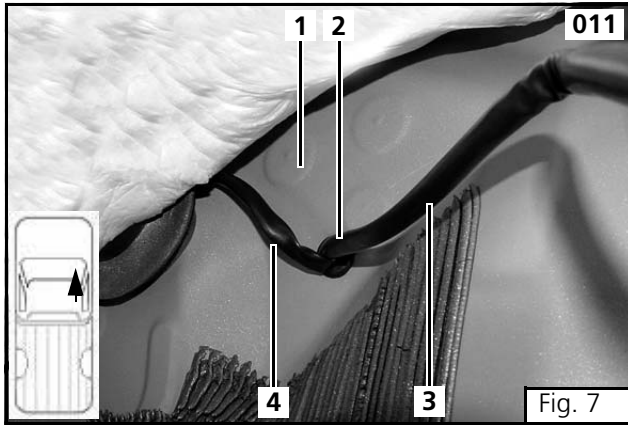
ATTENTION

Removal of vehicle battery will ease harness routing.

- (1) Underhood Fuse Block
- (2) Webasto Blower and Timer Control Harnesses
- (3) Bulkhead

Route blower and timer control harnesses along right fender to vehicle bulkhead. Route harnesses behind the underhood fuse block as shown in figure 6.





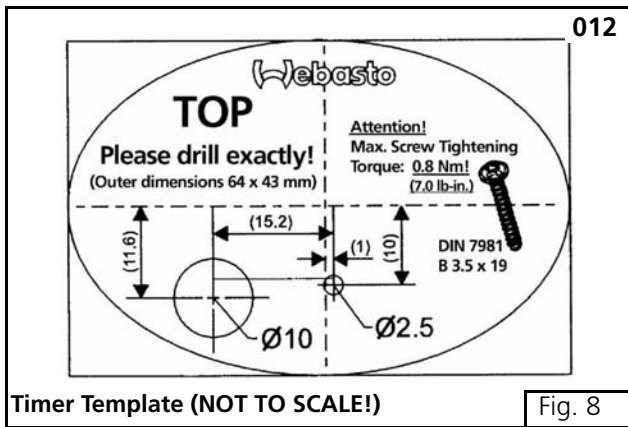
CAUTION

Check behind bulkhead for obstructions before drilling hole. Use a grommet or weather proofing material to cover sharp edges around hole.

ATTENTION

Figure 7 shows the Titan bulkhead/passenger footwell area. The Armada has an existing hole in this vicinity that can be used.

- (1) Bulkhead / Passenger Footwell Area
- (2) Drill 20 mm (3/4 in.) hole, insert grommet
- (3) Route blower harness through bulkhead
- (4) Route timer harness through bulkhead



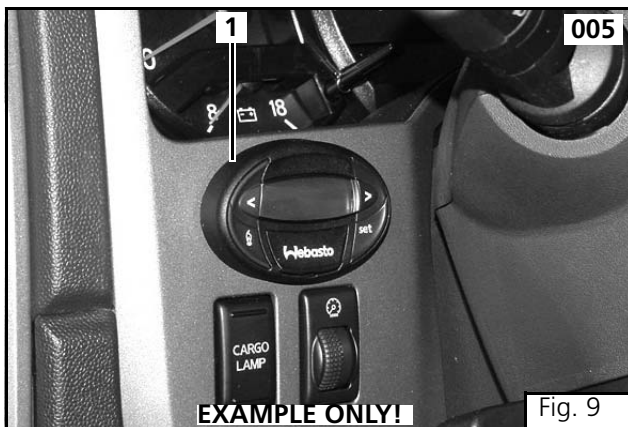
CAUTION

Before drilling into any panels, ensure there are no hidden components behind the panel that may be damaged or interfere with the timer installation!

ATTENTION

Before installing the timer, please confirm the installation site with your customer.

Affix supplied template to panel. Drill 10 mm (25/64 in.) and 2.5 mm (3/32 in.) holes as shown on template.

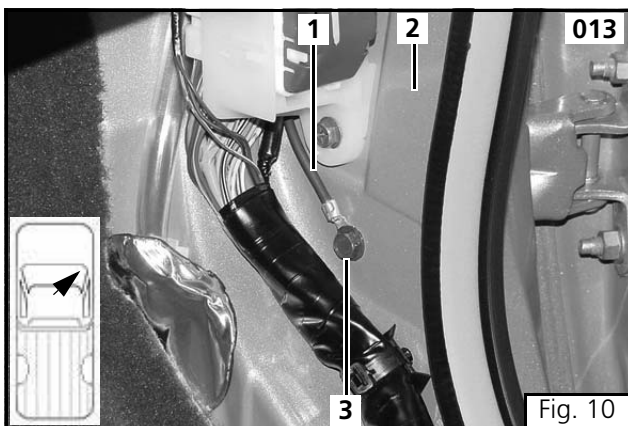


ATTENTION

Ensure foam cushion is installed between timer control and instrument panel.

Tighten screw to 0.8 Nm (7.0 lb.-in.). DO NOT OVER TIGHTEN!

- (1) Webasto Timer Controller (Model 1533)



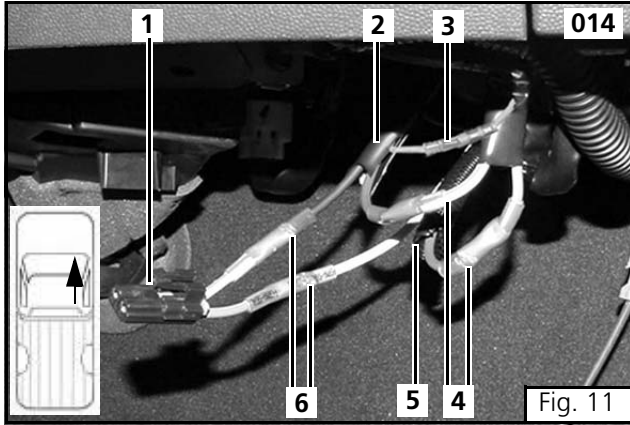
Vehicle Blower Control Harness Integration With Webasto Harness

ATTENTION

Secure Webasto Auxiliary Harness (K3 Relay) under dash. The Webasto Blower Control and Auxiliary (K3 Relay) harnesses may be shortened to a desired length.

- (1) Webasto Auxiliary Harness (K3 Relay) Ground
- (2) Right Kick Panel Area
- (3) Existing Vehicle Hardware



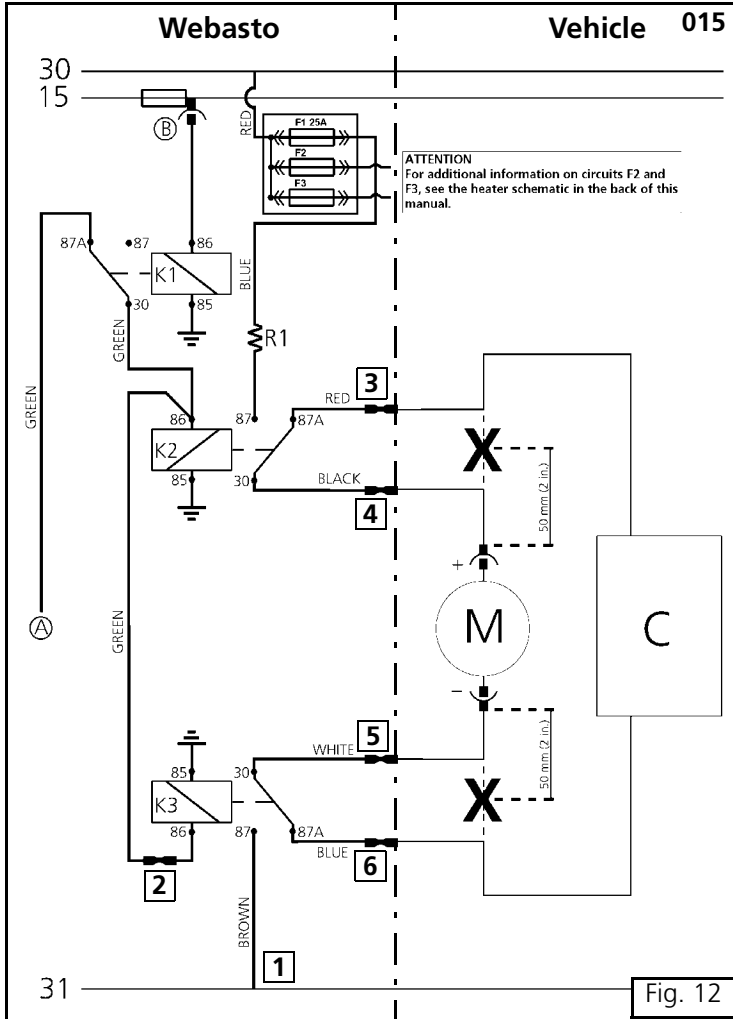


ATTENTION

Identify power side of blower motor connector, with the ignition and blower switches in the On position, before making any connections.

For additional information on integrating the Webasto Blower Control and Auxiliary (K3 Relay) harnesses into the vehicles HVAC system, refer to the wiring diagram in Figure 12.

- (1) Blower Motor Connector
- (2) Webasto Blower Control Harness
- (3) Green Wire from Webasto Blower Control Harness to Green Wire Pigtail at K3 Relay
- (4) Harness Integration - Controller Side
- (5) Webasto Auxiliary Harness (K3 Relay)
- (6) Harness Integration - Blower Side



HVAC Blower wiring connections:

- (1) Chassis ground
- (2) Splice green wire to green wire
- (3) Cut, strip and crimp
- (4) Cut, strip and crimp
- (5) Cut, strip and crimp
- (6) Cut, strip and crimp

ATTENTION

Check your wiring! Ensure that all connections have been done in accordance with the wiring diagram shown (Fig. 12). Sensitive electronic controls can be damaged if wired incorrectly!

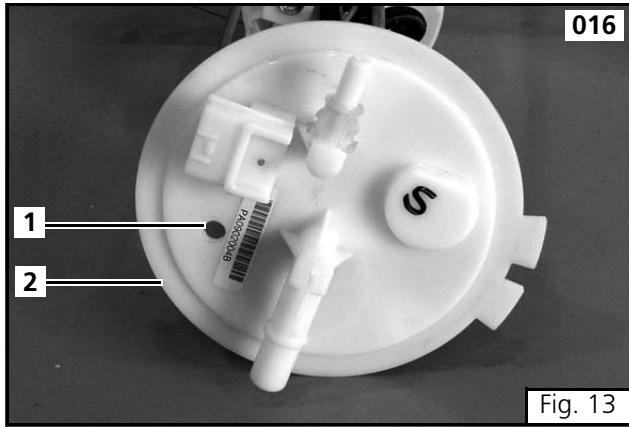
Complete wiring schematics are available in the back of this manual.

Secure HVAC blower control wiring to vehicle structures with nylon cable ties (Image not available)



Legend for Figure 12

- A From Webasto Heater X1
- B 12 VDC Ignition 'On' Fuse Tap
- C HVAC Control Module
- M HVAC Blower Motor
- X Cut wire at 50 mm (2 in.) from motor
- F1 Fuse - Blower Circuit 25 Amp.
- K1 Relay - Ignition 'On' Interrupt
- K2 Relay - Positive Side of Blower Motor Circuit
- K3 Relay - Negative Side of Blower Motor Circuit
- R1 Resistor - Blower Speed Control
- 30 Battery Positive (Constant Power)



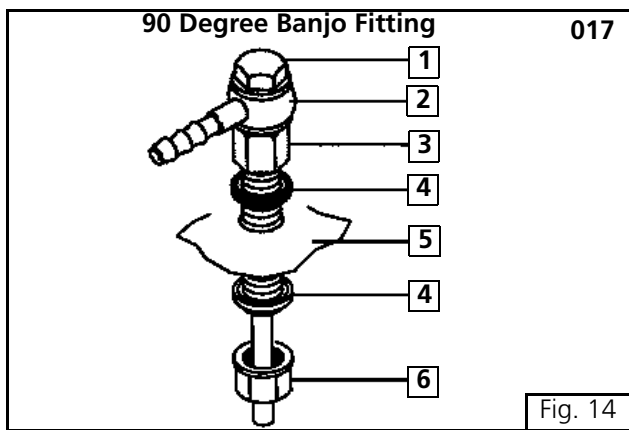
Integration into Fuel System (Titan)

CAUTION

Full to partially filled fuel tanks are heavy and awkward to handle. In the event the fuel tank must be removed to gain access to the sender unit, ensure tank is near empty. To prevent accidents and potential injury to personnel, ensure tank is well supported prior to removing mounting hardware.

- (1) 8.5 mm (21/64 in.) Hole Drilled for Webasto Standpipe
- (2) Vehicle Sending Unit

Remove fuel sender per manufacture's service instructions.

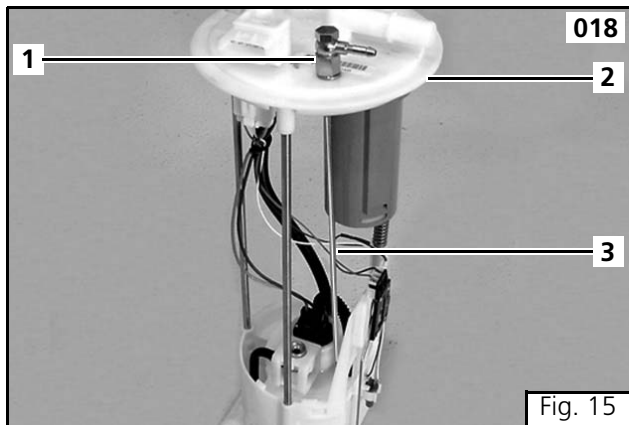


ATTENTION

Cut standpipe to length and bend if necessary to clear any fuel sender components.

Maintain a 1 in. clearance from the bottom of the fuel tank.

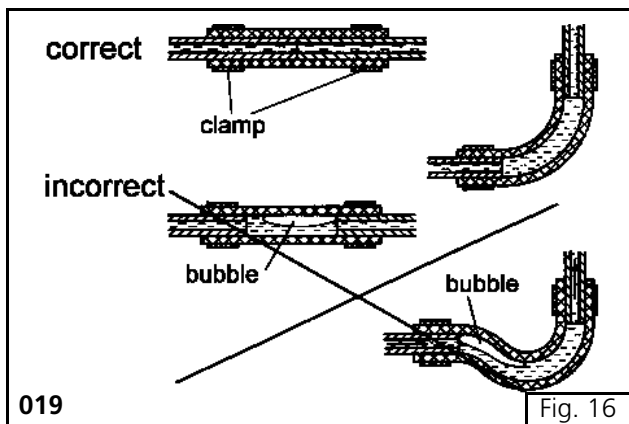
- (1) Banjo Bolt
- (2) Banjo Fitting - 90 Degree
- (3) Standpipe
- (4) Sealing Washer
- (5) Fuel Tank or Sender Plate
- (6) Lock Nut



ATTENTION

Figure 15 shows the recommended location for fuel standpipe installation.

- (1) 90 Degree Banjo Fitting
- (2) Vehicle Sending Unit
- (3) Fuel Standpipe



CAUTION

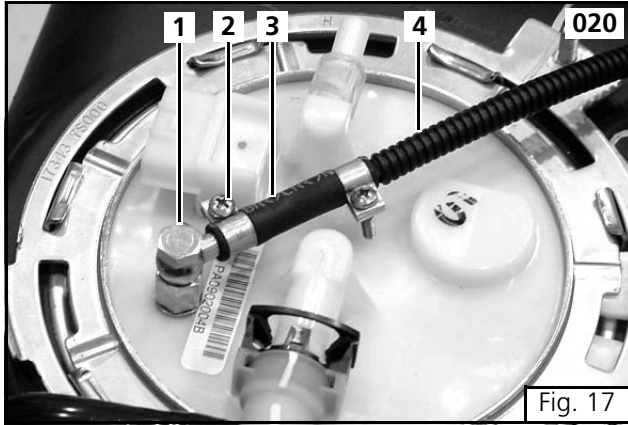
Always cut fuel line with a sharp razor knife or razor. DO NOT cut with side cutters, scissors or similar tools as doing so will cause a restriction inside the fuel line.

ATTENTION

Ensure the fuel lines are fully seated within the line connectors and any 90 degree bends are not buckled. Refer to fig. 16.

Tighten all fuel line clamps to 1.0 - 1.4 Nm (8.8 - 12.4 lb.-in.)

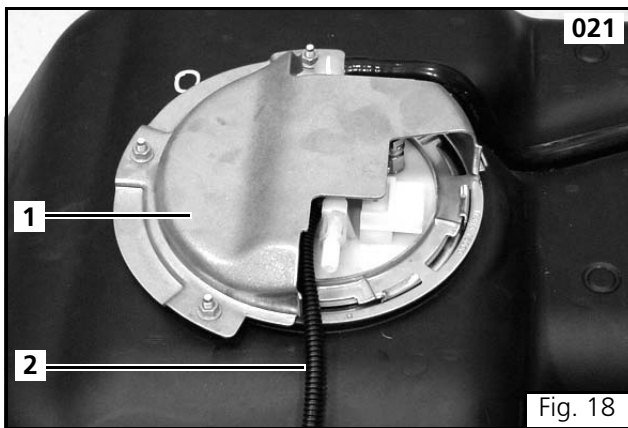




ATTENTION

It may be necessary to reposition banjo fitting outlet. If Banjo Bolt is loosened, re-tighten to 9 ± 0.5 Nm. (80 ± 4.4 lb.-in.).

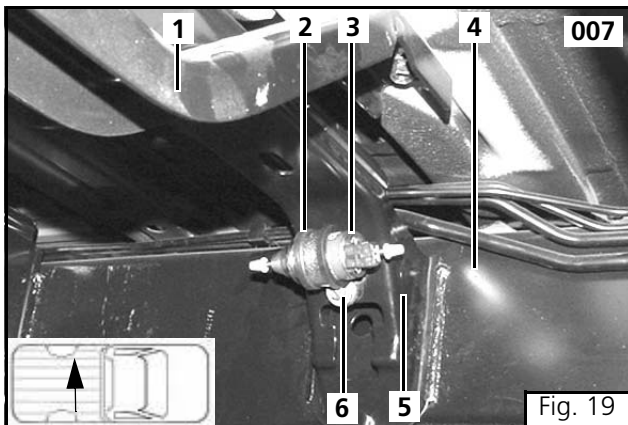
- (1) 90 Degree Banjo Fitting
- (2) fuel line clamp (2 ea.)
- (3) Fuel Line Connector
- (4) Heater Fuel Line (Cover with plastic conduit)



ATTENTION

Note location of heater fuel line with fuel sender shield installed.

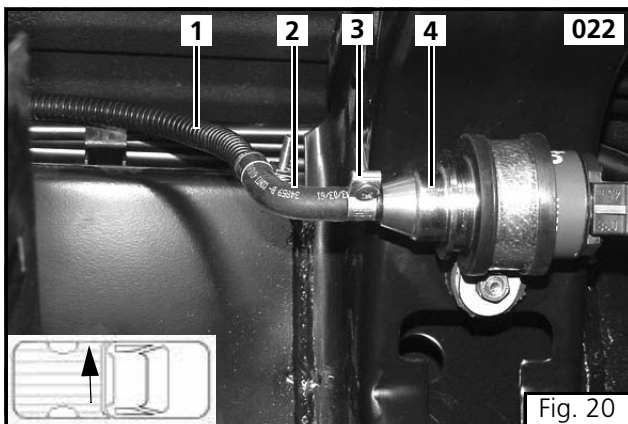
- (1) Fuel Sender Shield
- (2) Heater Fuel Line



ATTENTION

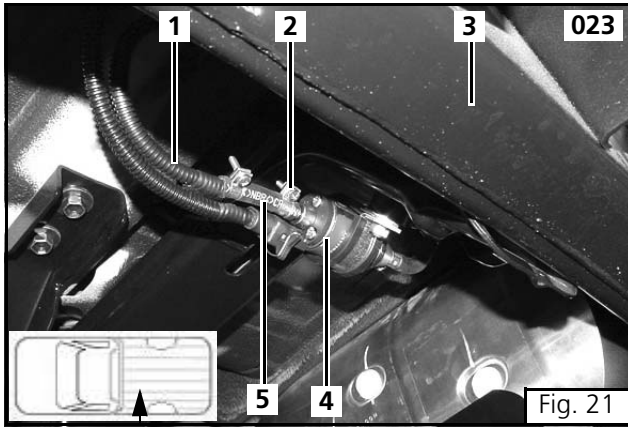
Drill a 5.5 mm (1/4 in.) hole through support bracket to install heater fuel pump rubber mount.

- (1) Vehicle Crossmember
- (2) P-clamp Retainer
- (3) Heater Fuel Pump
- (4) Left (Driver Side) Frame Rail
- (5) Vehicle Support Bracket
- (6) Rubber Mount and Mounting Hardware

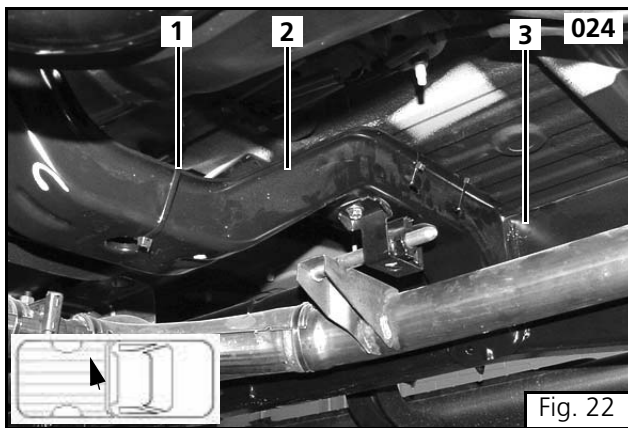


- (1) Heater Fuel Line (from sender)
- (2) 90 Degree Fuel Line Connector
- (3) fuel line clamp (2 ea.)
- (4) Inlet Side of Fuel Pump

Route fuel line from fuel sender to the inlet side of the fuel pump.



- (1) Heater Fuel Line (to heater)
- (2) fuel line clamp (2 ea.)
- (3) Left Frame Rail
- (4) Outlet Side of Fuel Pump
- (5) Fuel Line Connector

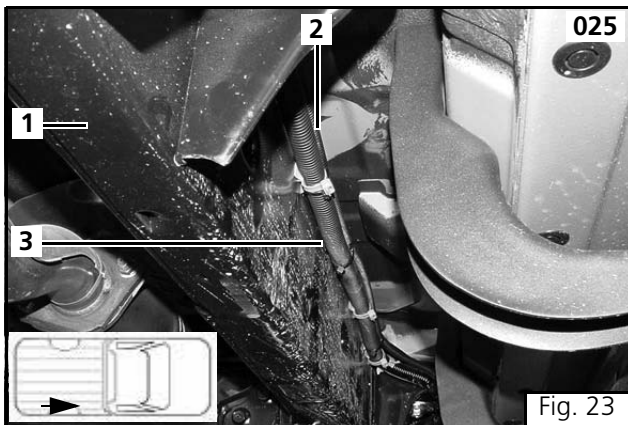


CAUTION

Keep fuel line away from hot exhaust components by routing it inside the vehicle crossmember.

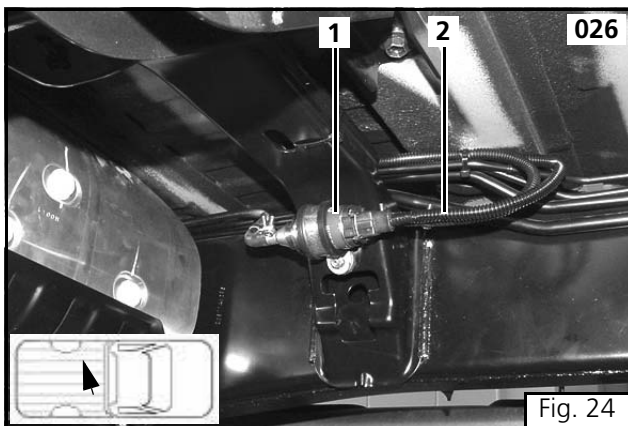
- (1) Nylon Cable Tie
- (2) Vehicle Crossmember
- (3) Left Frame Rail

Route heater fuel line from fuel pump outlet towards the right (passenger) side of the vehicle. Secure fuel line with nylon cable ties.



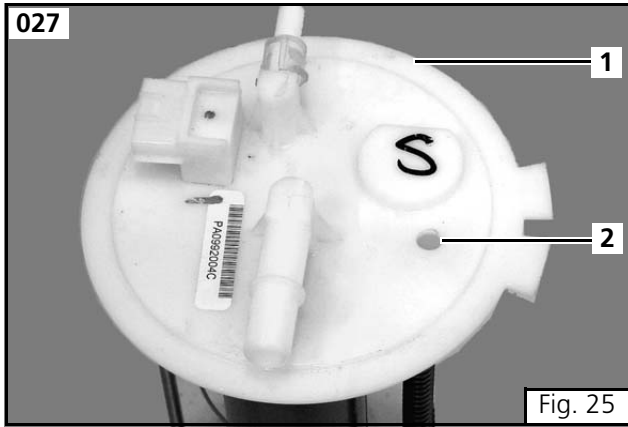
- (1) Right (Passenger) Frame Rail
- (2) Heater Fuel Line (to heater)
- (3) Vehicle Electrical Harness

Route fuel line along right frame rail to heater mounting location. Secure fuel line with nylon cable ties.



- (1) Fuel Pump
- (2) Fuel Pump Electrical Harness

Route heater fuel pump electrical harness to fuel pump mounting location following heater fuel line. Secure fuel pump electrical harness with nylon cable ties.



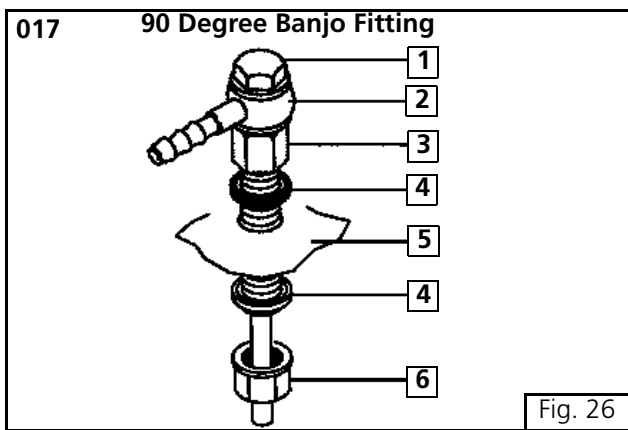
Integration into Fuel System (Armada)

CAUTION

Full to partially filled fuel tanks are heavy and awkward to handle. In the event the fuel tank must be removed to gain access to the sender unit, ensure tank is near empty. To prevent accidents and potential injury to personnel, ensure tank is well supported prior to removing mounting hardware.

- (1) Vehicle Sending Unit
- (2) 8.5 mm (21/64 in.) Hole Drilled for Webasto Standpipe

Remove fuel sender per manufacture's service instructions.

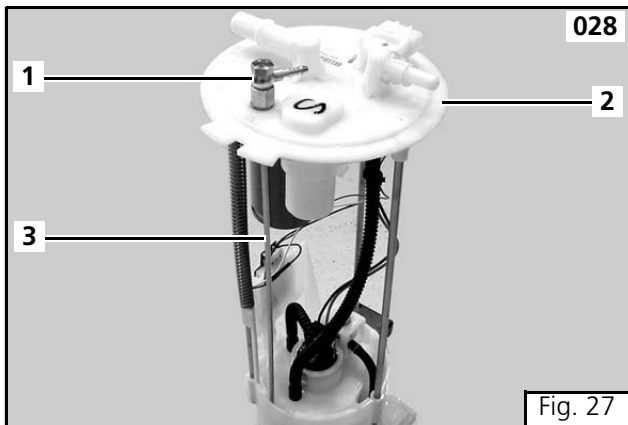


ATTENTION

Cut standpipe to length and bend if necessary to clear any fuel sender components.

Maintain a 1 in. clearance from the bottom of the fuel tank.

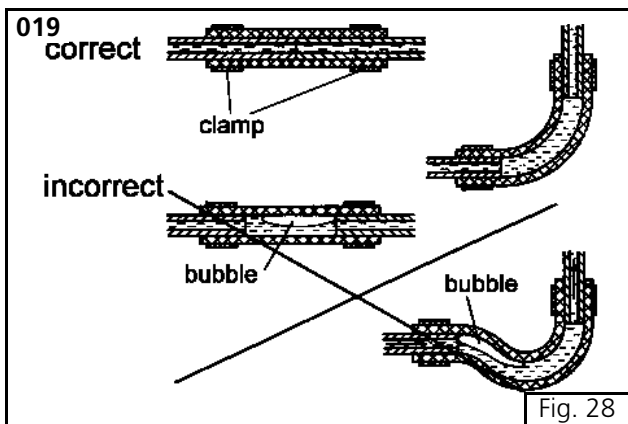
- (1) Banjo Bolt
- (2) Banjo Fitting - 90 Degree
- (3) Standpipe
- (4) Sealing Washer
- (5) Fuel Tank or Sender Plate
- (6) Lock Nut



ATTENTION

It may be necessary to reposition banjo fitting outlet. If Banjo Bolt is loosened, re-tighten to $9 \pm 0.5 \text{ Nm}$. ($80 \pm 4.4 \text{ lb.-in.}$).

- (1) 90 Degree Banjo Fitting
- (2) Vehicle Sending Unit
- (3) Fuel Standpipe



CAUTION

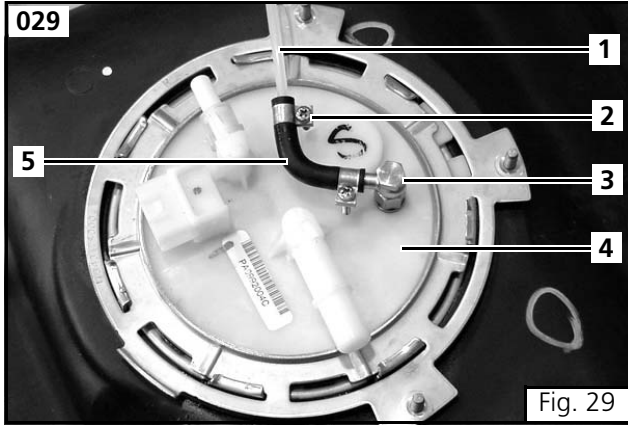
Always cut fuel line with a sharp razor knife or razor. DO NOT cut with side cutters, scissors or similar tools as doing so will cause a restriction inside the fuel line.

ATTENTION

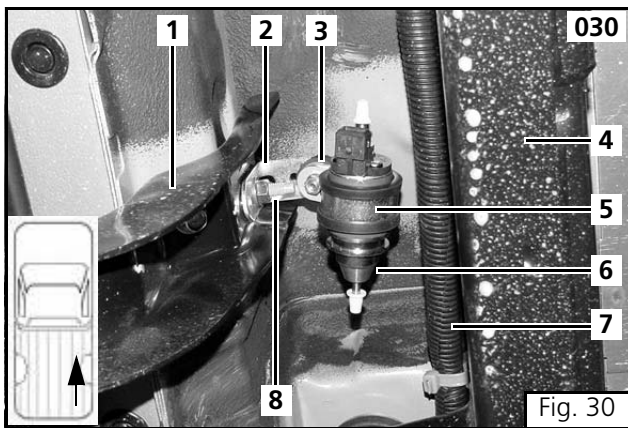
Ensure the fuel lines are fully seated within the line connectors and any 90 degree bends are not buckled. Refer to fig. 16.

Tighten all fuel line clamps to 1.0 - 1.4 Nm (8.8 - 12.4 lb.-in.)



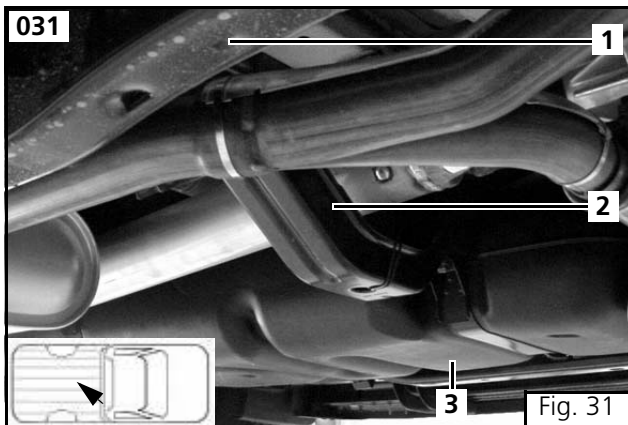


- (1) Heater Fuel Line
- (2) fuel line clamp (2 ea.)
- (3) 90 Degree Banjo Fitting
- (4) Fuel Sender
- (5) Fuel Line Connector



- (1) Running Board Support Bracket
- (2) Fuel Pump Mounting Bracket
- (3) Rubber Mount and Mounting Hardware
- (4) Right (Passenger) Frame Rail
- (5) P-clamp Retainer
- (6) Fuel Pump
- (7) Vehicle wiring Harness
- (8) Existing Vehicle Hardware

The heater fuel pump is mounted between the right frame rail and the running board support bracket, just forward of the body mount.

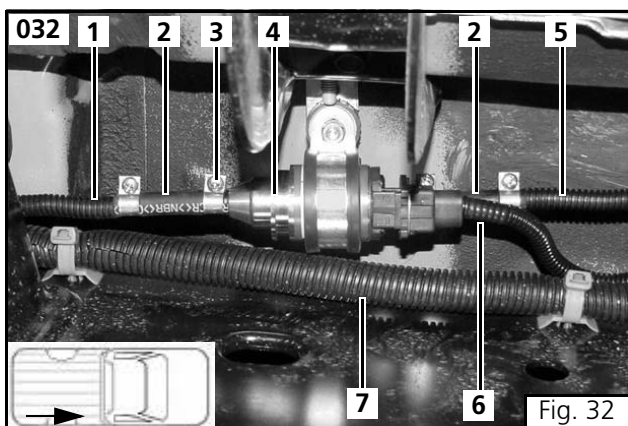


CAUTION

Keep fuel line away from hot exhaust components by routing it inside the vehicle crossmember.

- (1) Right Frame Rail
- (2) Vehicle Crossmember
- (3) Vehicle Fuel Tank

Route fuel line from fuel sender to the inlet side of the fuel pump. Secure fuel line with nylon cable ties



- (1) Heater Fuel Line (from sender)
- (2) Fuel Line Connector (2 ea.)
- (3) Fuel Line Clamps (4 ea.)
- (4) Fuel Pump Inlet
- (5) Heater Fuel Line (to heater)
- (6) Fuel Pump Electrical Harness
- (7) Vehicle wiring Harness

Route fuel pump harness from engine compartment to fuel pump mounting location. Route heater fuel line along fuel pump harness to heater mounting location. Secure fuel line and harness to vehicle with nylon cable ties.



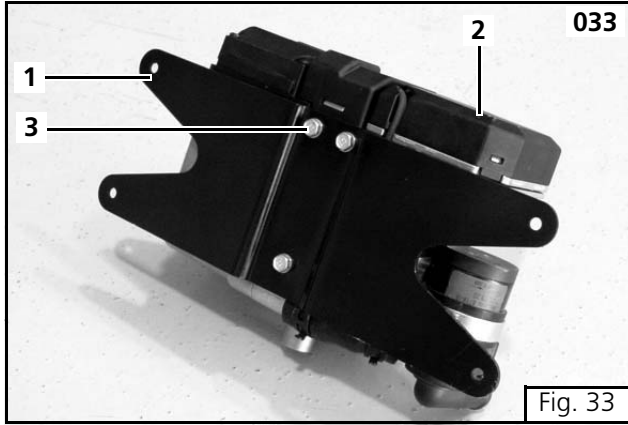
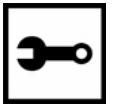


Fig. 33



Fig. 34

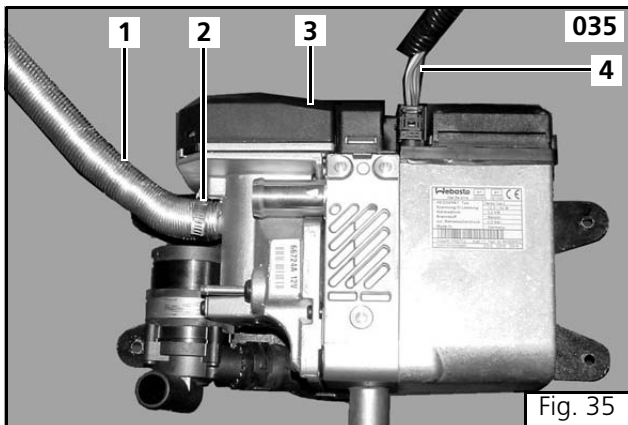


Fig. 35

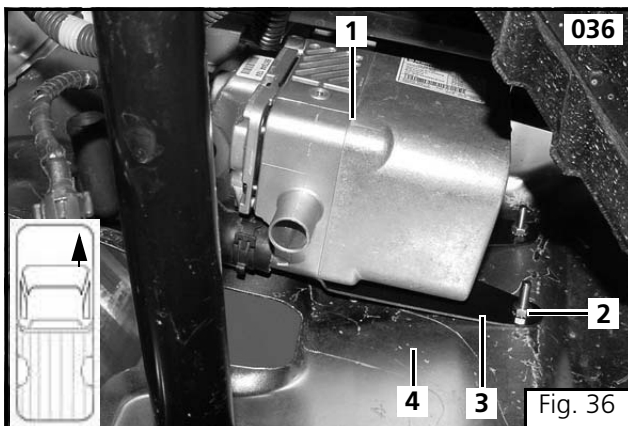


Fig. 36

Heater Preparation and Installation

ATTENTION

Observe torque specifications.

- (1) Heater Mounting Bracket
- (2) Webasto Heater
- (3) M6 EJOT Screws (3 ea.)

Install heater on mounting bracket with three EJOT screws. Tighten EJOT screws to 10 Nm (88.5 lb.-in.).

Remove right front bumper cover per manufacturer's service instructions.

Position heater and mounting bracket assembly behind right front bumper as far to the right (passenger side) and as far up as possible.

Now move assembly slightly down and to the left to allow for a small gap around the heater.

Using the mounting bracket as a template, mark and center-punch each of the four mounting holes.

ATTENTION

Position bumper cover over bumper before drilling holes to ensure fog lamp does not interfere with heater mounting location.

Drill four 6.5 mm (1/4 in.) holes through bumper.

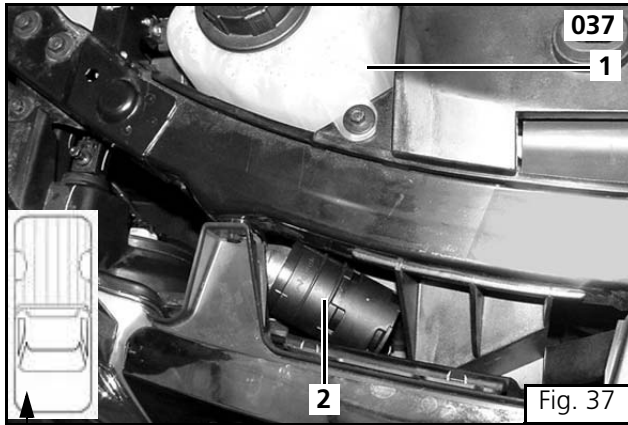
- (1) Air Intake Tube
- (2) Narrow Hose Clamp
- (3) Webasto Heater
- (4) Heater Control Harness

Connect control harness and install air intake tube before mounting heater to the bumper.

- (1) Webasto Heater
- (2) M6 x 25 Bolt, M6 Kep Nut (4 ea.)
- (3) Heater Mounting Bracket
- (4) Inner Right Front Bumper

Install heater on right front bumper as shown in figure 36.



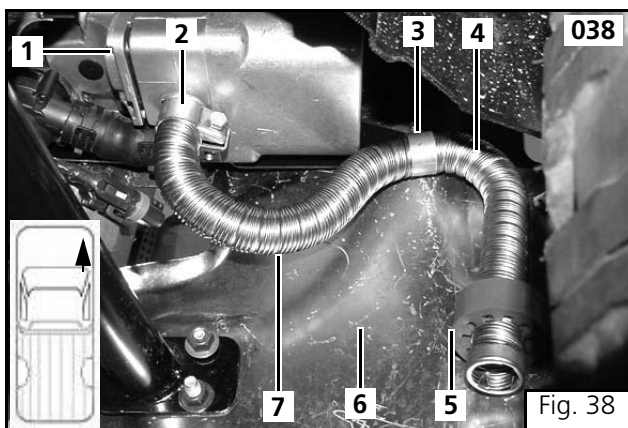


Combustion Air Intake and Silencer

ATTENTION

Use nylon cable ties to secure air intake silencer as shown in figure 37.

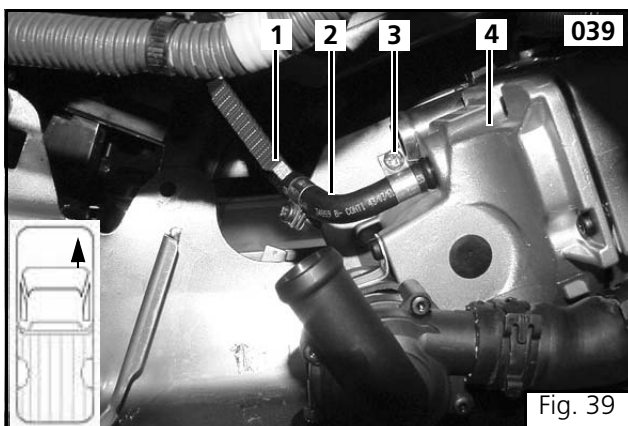
- (1) Coolant Overflow Bottle
- (2) Air Intake Silencer (shown with closeout cover removed)



Exhaust Routing and Installation

- (1) Webasto Heater
- (2) Exhaust Clamp
- (3) P-clamp
- (4) Exhaust Tube - Cut to 43.18 cm (17 in.)
- (5) Rubber Insulator
- (6) Right Inner Fender
- (7) Drill a small hole to allow condensation to escape.

Install exhaust tube P-clamp on heater mounting bracket using existing mounting bolt and additional nut found in bag of Air/Exhaust parts.



Fuel Line Connection at Heater

CAUTION

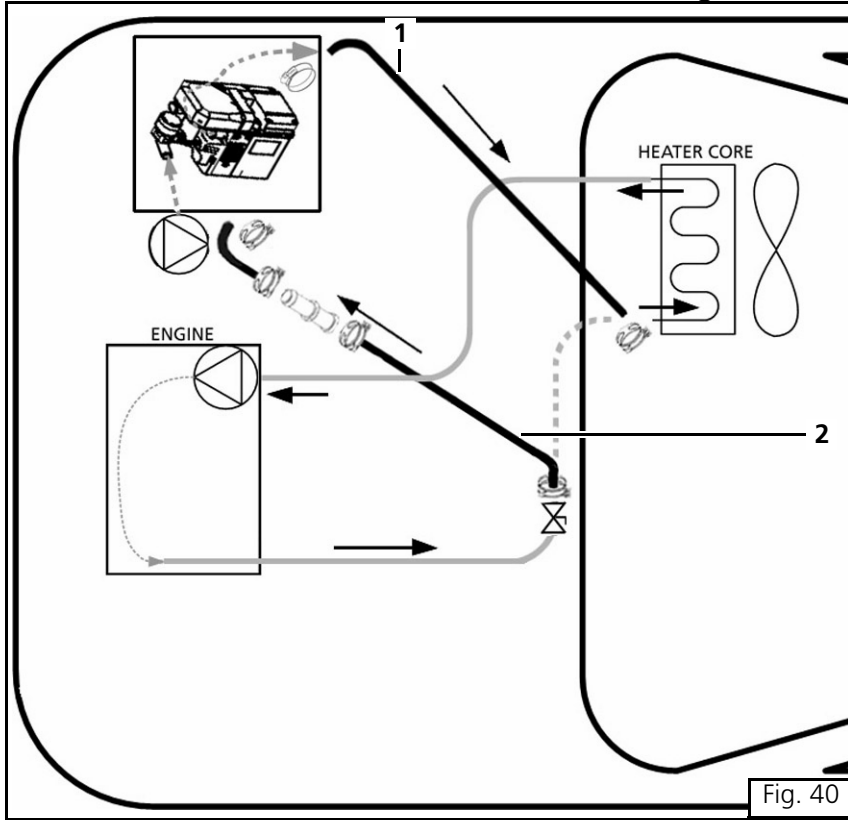
Always cut fuel line with a sharp razor knife or razor. DO NOT cut with side cutters, scissors or similar tools as doing so will cause a restriction inside the fuel line.

- (1) Heater Fuel Line (from fuel pump)
- (2) 90 Degree Fuel Line Connector
- (3) Fuel Line Clamp (2 ea.) - Tighten to 1.0 - 1.4 Nm (8.8 - 12.4 lb.-in.)
- (4) Webasto Heater





Integration into Coolant System



ATTENTION

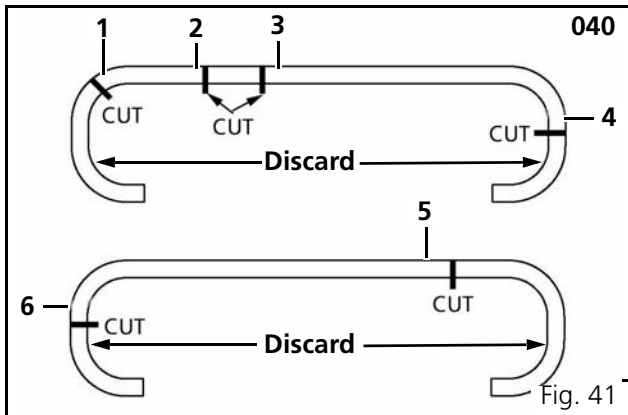
Fig. 40 displays the integration of the Webasto Coolant Heater into the vehicles cooling system.

Also see the plumbing schematic in the back of this manual for a general outline of the coolant circuit and for vehicles with rear heat.

ATTENTION

Torque all hose clamps to 2.0 - 2.5 Nm (18 - 22 lb.-in.).

- (1) Webasto Coolant Outlet Hose
- (2) Webasto Coolant Inlet Hose



ATTENTION

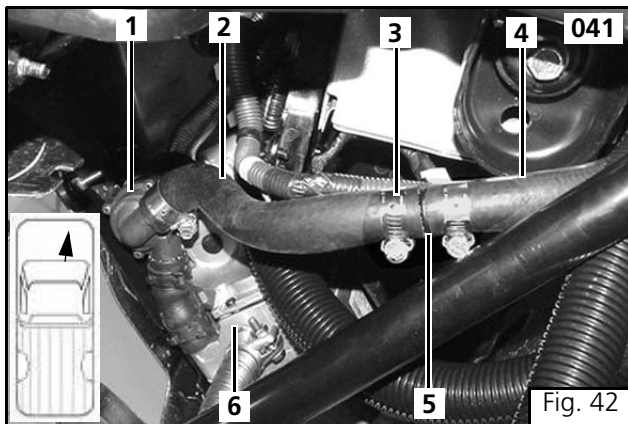
Cut provided coolant hoses according to fig. 41. Cut Hose 1 (connection # 1) at a 45 Degree angle to avoid pinching or collapsing the coolant hose.

Hose 1

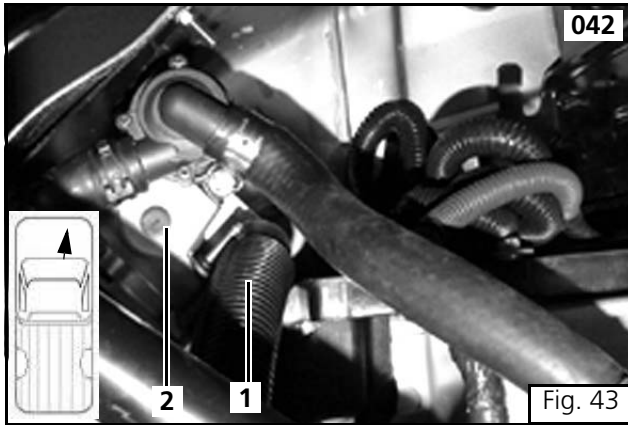
- (1) Connect to heater coolant pump inlet.
- (2) Connect to coupler 20x20 mm.
- (3) Connect to coupler 20x20 mm.
- (4) Connect to vehicle coolant control valve (out).

Hose 2

- (5) Connect to the vehicle heater core inlet.
- (6) Connect to Webasto heater outlet.



- (1) Webasto Heater Coolant Pump
- (2) Coolant Hose from Coolant Pump to Coupler
- (3) Hose Clamp (2 ea.)
- (4) Coolant Hose from Coupler to Coolant Control Valve (Engine Block)
- (5) Coolant Hose Coupler
- (6) Webasto Heater



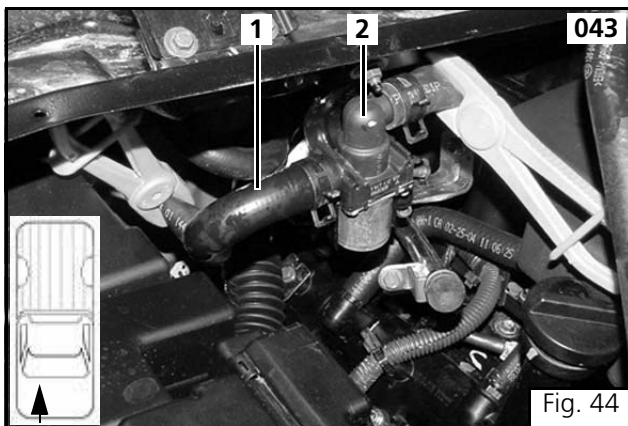
042

- (1) Webasto Heater Outlet Hose (90 Degree end)
- (2) Webasto Heater

Cover coolant hoses with plastic conduit provided.

Secure coolant hoses using nylon cable ties.

Fig. 43



043

- (1) OE Heater Core Supply Hose
- (2) Vehicle Coolant Control Valve

Remove and discard OE hose. Retain hose clamp for coolant connection.

Fig. 44

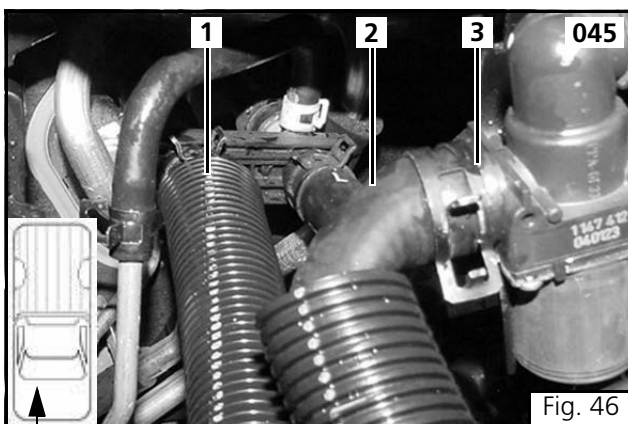


044

- (1) Webasto Heater Outlet Hose
- (2) Webasto Heater Inlet Hose

Route coolant hoses as shown in figure 45.

Fig. 45



045

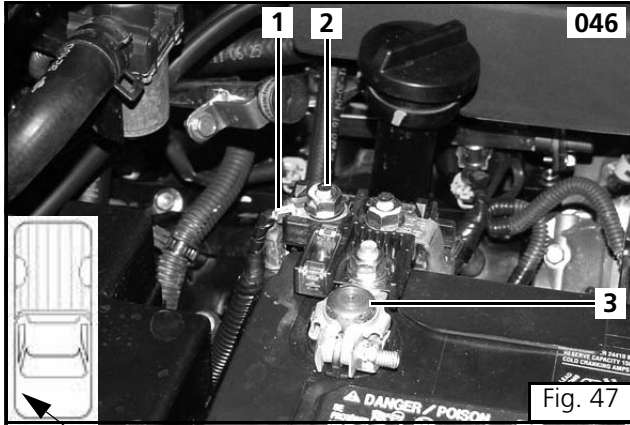
- (1) Webasto Coolant Hose from Webasto Heater Outlet
- (2) Webasto Coolant Hose to Webasto Heater Coolant Pump
- (3) Vehicle Coolant Control Valve

Make connections using hose clamps removed from discarded OE hose.

Fig. 46



Power Connection



- (1) Webasto Power Lead
- (2) Battery Positive Stud
- (3) Battery Positive Post

Concluding Work

- Install all vehicle parts, panels and components removed during heater installation.
- Check that all hose lines, hose clamps, pipe clips and electrical connections are secure.
- Secure all loose lines and cables with nylon cable ties.
- Spray the heater components and electrical connections with an anti-corrosive wax coating.



Final Inspection and Initial Start-up

Final Inspection

Inspect installation for:

- Loose fasteners.
- Exhaust system routing and clamp tightness.
- Combustion air intake tube routing and clamp tightness.
- Loose coolant line clamps.
- Pinched coolant lines.
- Routing of coolant lines and coolant lines securely tied and protected against chafing and related damage.
- Loose fuel line clamps.
- Routing of fuel lines and fuel lines securely tied and protected against chafing and related damage.
- Loose wiring connections and battery connections.
- routing of wiring harness and wiring harness securely tied and protected against chafing and related damage.
- Check operation of vehicle heater fan with Webasto heater OFF.

Initial Start-up

1. Top off cooling system with coolant per engine/vehicle manufacturers recommendations.
2. Set interior heater control to maximum heat position (hot) and switch off air conditioning system.
3. Start the vehicle engine and run on fast idle for 5 minutes to purge any remaining air from the Webasto heater and coolant system. While the engine is running check:
 - Hose connections for leaks.
 - Coolant level in expansion tank. (Add coolant as needed)
4. Switch off the engine.

ATTENTION

More than one start-up attempt of the heater may be required to purge air from fuel system before heater will start. Cycle heater Off and On after each failed start attempt until heater starts successfully. After 3 consecutive unsuccessful start attempts, the webasto control unit enters into Heater lockout. See Heater Lockout section for reset instructions.



5. Switch on the Webasto heater by means of the instant heat button on timer and check:
 - Timer panel and instant heat indicator illuminates.
 - Circulating pump in operation.
 - Initiation of start-up sequence.
 - Successful start-up and operation.
6. Allow heater to run for 20 minutes or until coolant is heated to temperature. Re-tighten all hose clamps.

ATTENTION

Engine coolant temperature gauge may read lower than actual Webasto heater output temperature. This is due to the location of the temperature gauge sensor on engine.





Heater Lockout Reset Procedure

The BlueHeat is designed with a lockout safety feature built into the control unit. After 3 consecutive unsuccessful startup attempts, the heater will lock itself out from any further start attempts. The heater may also enter the lockout mode after experiencing an overheat condition.

Reset Heater "Lockout" mode by performing the following procedure:

1. Ensure timer or switch is in the "OFF" position. Turn timer or switch to the "On" position. Remove main fuse F2 (20 Amp), reinsert after 5 seconds.
2. Cycle timer or switch off and then back on once more. Remove fuse F2 once again and reinsert after 5 seconds. Heater should attempt to start after inserting fuse.

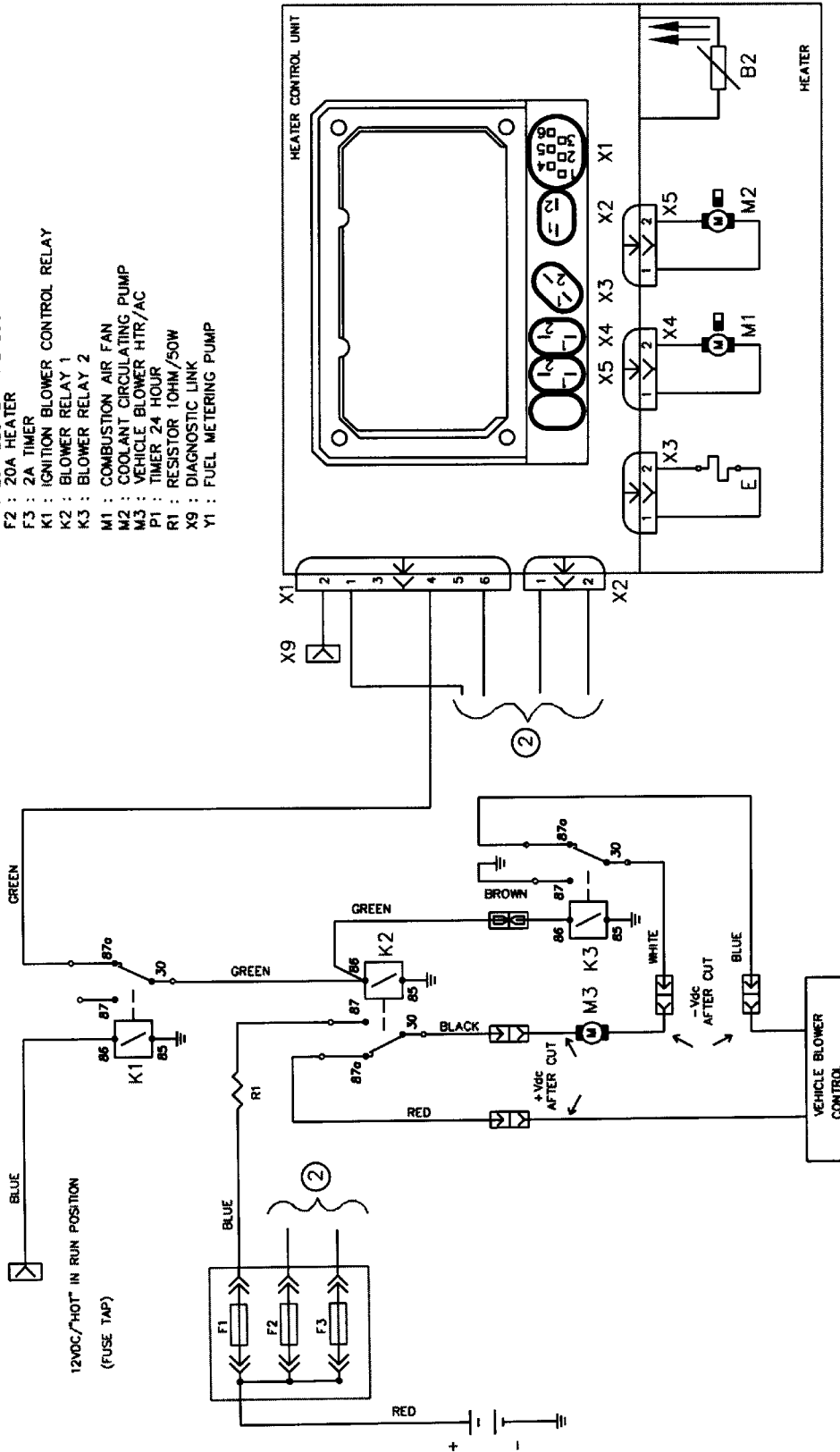
ATTENTION

- Coolant temperature must be below the lower threshold before heater will attempt to start.
- The engine coolant must reach 86 °F (30 °C) before the Webasto heater will attempt to start vehicles blower fan.
- Should the heater fail to start or operate correctly, call your Webasto technical representative at:
1-800-555-4518



Electrical Harness Schematic - Part 2, HVAC Blower Control

- B2 : TEMPERATURE SENSOR - COOLANT
- E : CERAMIC IGNITOR / FLAME DETECTOR
- F1 : 25A BLOWER INTERLOCK
- F2 : 20A HEATER
- F3 : 2A TIMER
- K1 : IGNITION BLOWER CONTROL RELAY
- K2 : BLOWER RELAY 1
- K3 : BLOWER RELAY 2
- M1 : COMBUSTION AIR FAN
- M2 : COOLANT CIRCULATING PUMP
- M3 : VEHICLE BLOWER HTR/AC
- P1 : TIMER 24 HOUR
- R1 : RESISTOR 1OHM/50W
- X9 : DIAGNOSTIC LINK
- Y1 : FUEL METERING PUMP



| | | | | | |
|------|---------|--|----------|--------------------------------|--|
| | | TITLE SCHEMATIC TTC WITH 24 HOUR TIMER UNIVERSAL CLIMATE CONTROL PAGE 2 OF 2 | | DWG NO. 908265A-2 SCALE NTS | |
| DR | 21JAN03 | NAME | G.MILLER | THIRD ANGLE PROJECTION | |
| CHK | 21JAN03 | G.MILLER | R.FERRIS | ALL DIMENSIONS ARE IN mm | |
| APPR | 21JAN03 | R.FERRIS | | 908 265 | |

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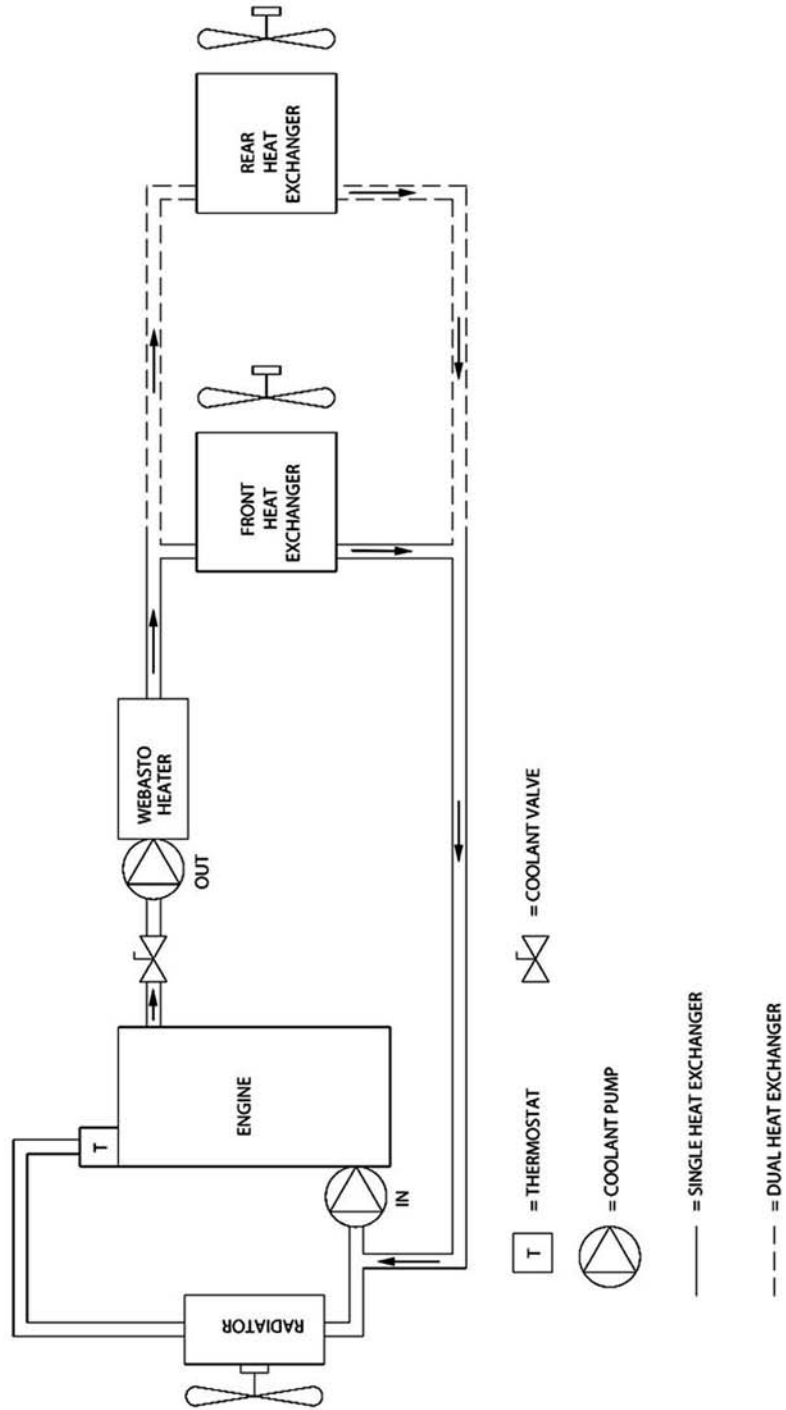
FUNCTION : WHEN HEATER IS SWITCHED ON AND COOLANT REACHES 60°C (140°F) THE WEBASTO HEATER SENDS A SIGNAL THROUGH K1 TO K2 AND K3 VEHICLE BLOWER WILL COME ON AT LOW SPEED IF A VEHICLE IGNITION SIGNAL IS PRESENT AT K1, THE VEHICLE RETURNS TO NORMAL HVAC/OPERATOR CONTROLS

② SEE PAGE 1 OF 2 FOR ALL OTHER HEATER CONTROLS



Heater Plumbing Schematic - Inline Method

WEBASTO THERMO TOP C INLINE COOLANT SCHEMATIC



REVISED: 10/JUN/04 N. GREENMAN

DWG NO: 908277A

NOTES:



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Canada: (800) 667-8900

www.webasto.us

www.techwebasto.com