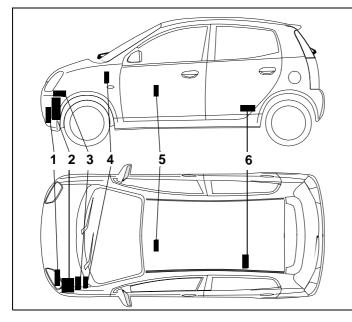
*Thermo Top E* Additional Heater *Thermo Top C* Additional Heater *Thermo Top P* Additional Heater







## Installation Instructions Suzuki Swift Suzuki Swift 4WD

Gasoline from Model 2005 and Diesel from Model 2006

Applicable to Chassis No.: TSMMZ... JSAEZ...

For left-hand drive vehicles only

#### Legend for Figure 1:

- 1 Exhaust muffler
- 2 Thermo Top C/E heater unit
- 3 Combustion-air intake muffler
- 4 Blade-type fuse holder
- 5 Digital timer
- 6 Metering pump



WARNING!

Hazard warning:

Incorrect installation or repair of Webasto heating systems may cause a fire or result in the emission of carbon monoxide, which can be fatal. Serious or fatal injuries can be caused as a result.

Specialist company training, technical documentation, specialized tools and equipment are required to install and repair Webasto heating and cooling systems.

NEVER attempt to install or repair Webasto heating or cooling systems if you have not successfully completed the company training and thereby acquired the required technical skills, or if you do not have access to the required technical documentation, tools and equipment needed to carry out correct installation and repairs.

ALWAYS follow all Webasto installation and repair instructions and observe all warnings.

Webasto does not accept any liability for defects and damage that are attributable to installation by untrained staff.

#### **Table of Contents**

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#### Validity

Manufacturer	Model	Туре	EG-BE No./ABE
Suzuki	Swift	MZ	e4*2001/116*0090
Suzuki	Swift	EZ	e4*2001/116*0102

Engine type	Engine model	Output in kW	Displacement in cm <sup>3</sup>
Z13DT	Diesel	51	1248
D13A	Diesel	51	1248
M13A	Gasoline	68	1328
M15A	Gasoline	74.5	1490
M16A	Gasoline	92	1586

Vehicle models, engine types, equipment variants as well as national specifications, which are not listed in these installation instructions, have not been tested. However, installation according to these installation instructions may be possible.

The installation location of a digital timer and summer/winter switch should be confirmed with the end customer before installation.

#### Heater Unit/Installation Kit

Quantity Description		Order No.:
1	Suzuki-specific heater unit delivery scope	See Suzuki price list
1	Installation Kit for Suzuki Swift Gasoline from MY 05	1303675B
or		
1	Installation Kit for Suzuki Swift Diesel from MY 06	1311134A

#### Optional heater control either:

Description	Order No.:
Heater controls	See Suzuki price list

#### Optional auxiliary heater only 1.3 DDIS:

Quantity	Description	Order No.:
1	Auxiliary heating kit	65954B

#### Heater unit recommended for the respective vehicle class:

Vehicle	Heater unit
Compact car	Thermo Top E
Mid-size car, station wagon	Thermo Top C
Full-size car, van, offroader	Thermo Top P

The selection of the heater unit is based on the passenger compartment size of the vehicle and the level of comfort required by the customer!

#### Foreword

These installation instructions apply to Suzuki Swift vehicles with a Gasoline engine and diesel engine - for validity, see page 2 - from model year 2005/2006 and later, assuming technical modifications to the vehicle do not affect installation, any liability claims excluded. Depending on the vehicle version and equipment, modifications may be necessary during installation with respect to these installation instructions.

However, the stipulations in the "installation instructions" and "operating and maintenance instructions" for the *Thermo Top C/P/E* must always be observed.

The corresponding rules of technology and any information from the vehicle manufacturer should be observed during the installation work.

#### **General Instructions**

Installation should be carried out according to the general, standard rules of technology. Unless specified otherwise, fasten hoses, lines and wiring harnesses to original vehicle lines and wiring harnesses using cable ties.

Sharp edges should be fitted with edge protectors (split-open plastic hose).

Spray unfinished body areas, e.g. drilled holes, with anti-corrosion wax (Tectyl 100K, Order No. 111329).

#### **Special Tools**

- Torque wrench for 2.0 10 Nm
- Hose clamping pliers
- Metric thread-setter kit

#### **Explanatory Notes on Document**

To provide you with a quick overview of the individual working steps, you will find an identification mark on the outside top right corner of the page in question.

## Mechanical work

**Electrical connection** 

**Coolant connection** 

**Fuel connection** 

**Exhaust system** 

**Combustion air** 

R











Special features are highlighted using the following symbols:



!



Specific risk of injury or fatal accidents.

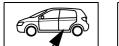
Specific risk of damage to components.

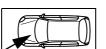
Specific risk of fire or explosion.

Reference to general installation instructions of Webasto components or to the manufacturer's vehiclespecific documents.



Reference to a special technical feature.





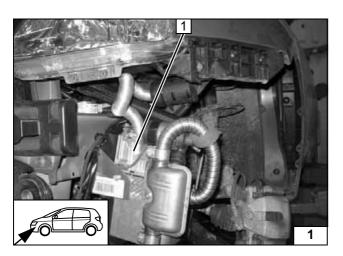
The arrow in the vehicle icon indicates the position on the vehicle and the viewing angle.

#### **Preliminary Work**

#### WARNING!

- Disconnect the battery "earth" or "ground" connection.
- Depressurize the cooling system.
- Copy the factory number from the original type label to the duplicate type label.
- Remove years that do not apply from the duplicate label.
- Attach the duplicate label (type label) in the appropriate place.
- Completely remove the battery.
- Remove the air filter complete with the intake hose (not M16A).
- Open fuel tank cap, ventilate tank.
- Close the tank cap again.
- Detach the wheel well trim on the right and left.
- Remove bumper.
- Remove the left wheel well trim.
- Remove the front and rear muffler.
- Remove the lower cover of the fuel line (on diesel vehicles only).
- Remove the fuel tank in accordance with the manufacturers specifications.
- Remove the fuel-tank sending unit in accordance with the manufacturers specifications.
- Remove the glove compartment.
- Remove the radio (hexagon bolt from the glove compartment).
- Remove the A/C control panel.
- Remove the lower trim of the center console in the footwell of the front passenger side (only with Telestart).
- Remove the A-pillar trim on the right (only with Telestart).
- Remove the glove compartment on the front passenger side (only with Telestart T100 HTM).

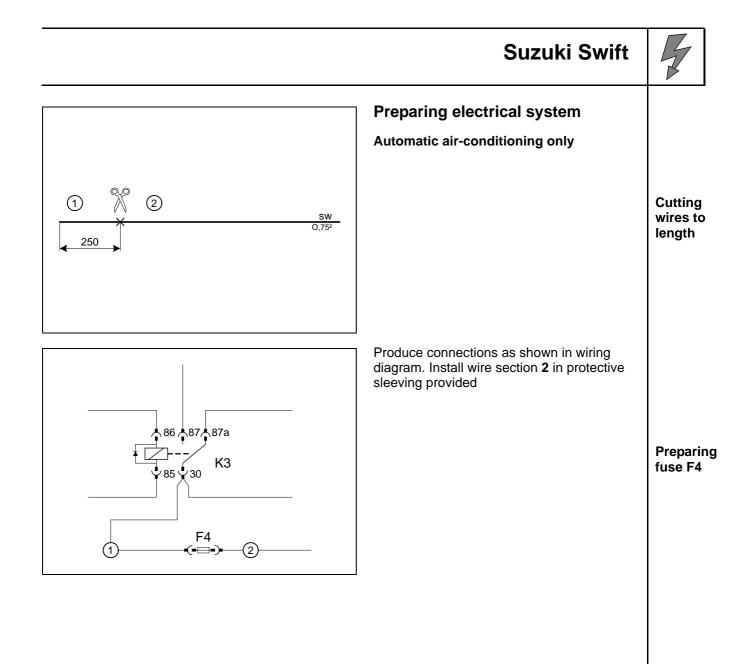
Remove page 33 "Operating Instructions for End Customer" and add to the vehicle operating instructions.



#### Heater unit installation location

1 Heater unit

Installation location



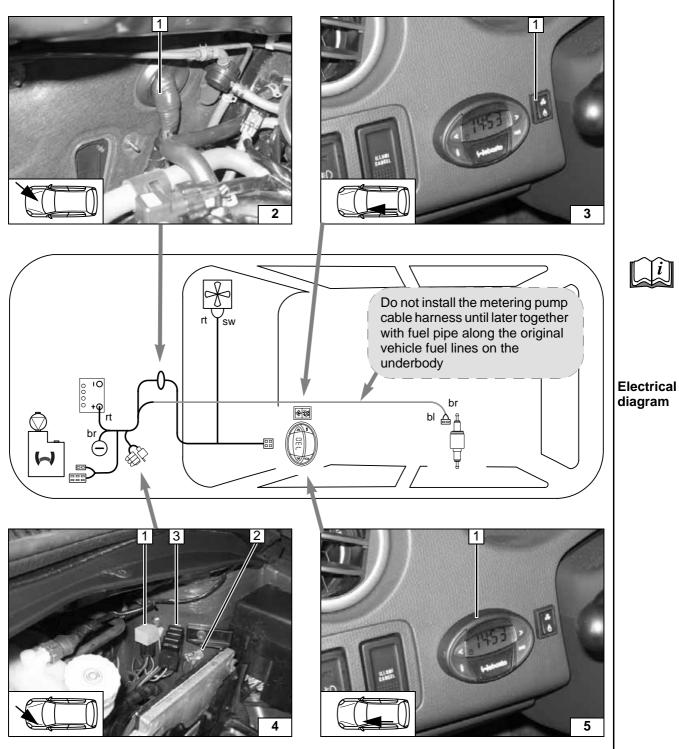
#### **Electrical Connections**

#### Wiring harness pass through

Strip cable pass through, guide through cable, insulate cable pass through again.1 Cable pass through

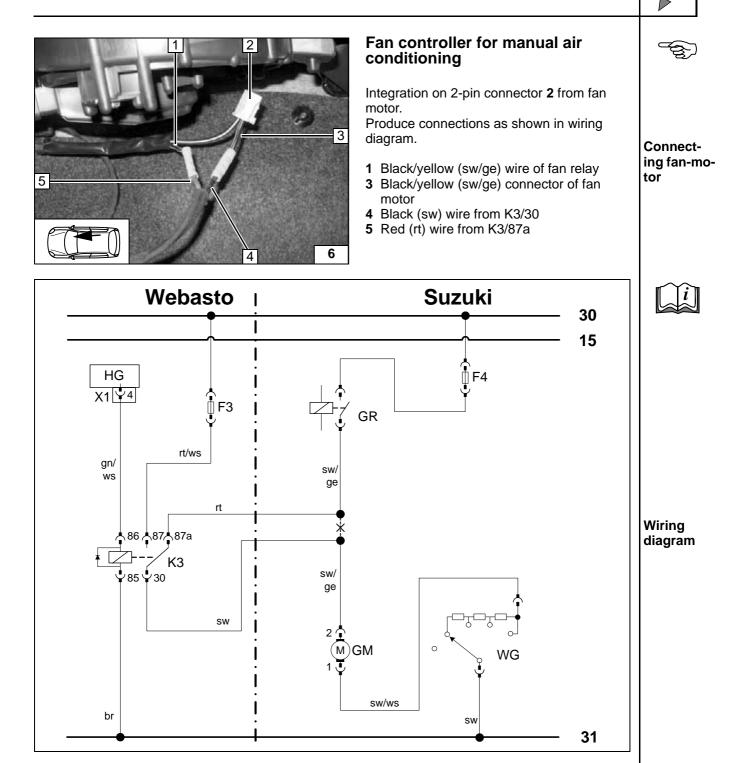
#### Summer/winter switch option

1 Summer/winter switch, drilled hole 12 mm dia.



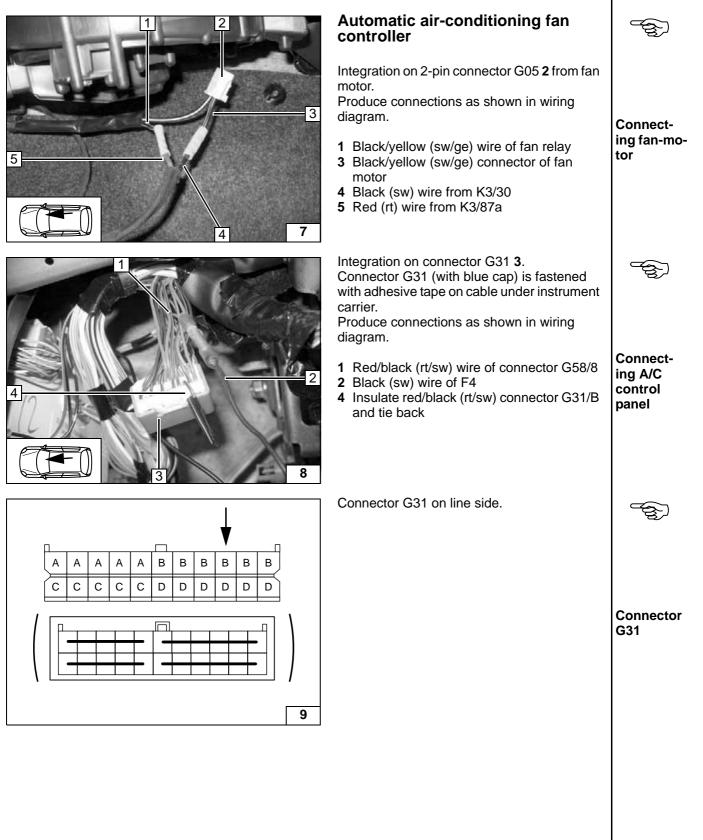
#### Fuse holder, relay K3

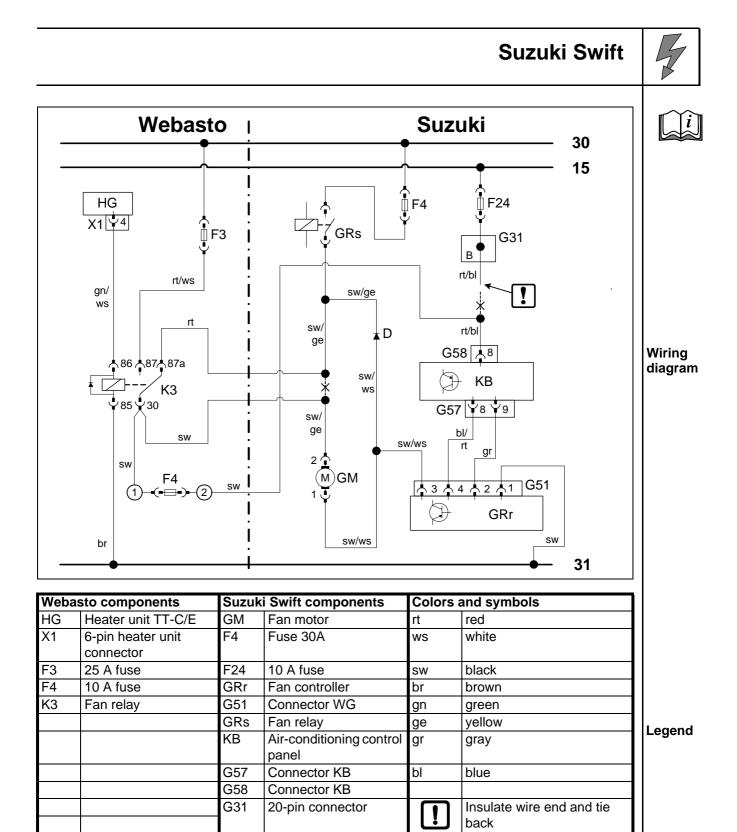
- **1** K3 relay, 5.5x13 self-tapping screw
- 2 Fuse holder, 5.5x13 self-tapping screw
- 3 Ground wire on original vehicle ground point
- **Digital timer**
- 1 Digital timer



Web	asto components	Suzu	ki Swift components	Color	rs and symbols		
HG	Heater unit TT-C/E	GM	Fan motor	rt	red		
X1	6-pin heater unit connector	F4	Fuse 30A	ws	white		
F3	25 A fuse	WG	Resistor group	SW	black		
K3	Fan relay	GR	Fan relay	br	brown		
				gn	green	Lege	nd
				ge	yellow		
				X	Cutting point		
				Wirin	g colors may vary.		



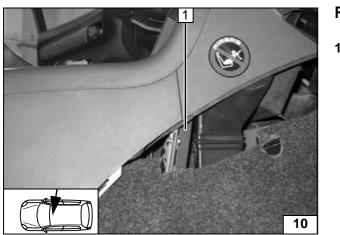


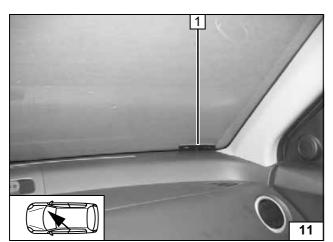


Х

Cutting point Wiring colors may vary.







## **Remote option (Telestart)**

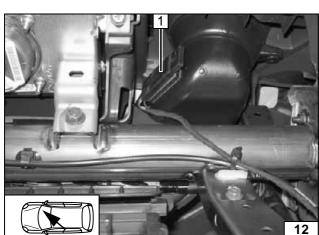
1 Receiver, M5x12 bolt, washer, M5 flanged nut



i

Installing antenna

1 Antenna



Degrease adhesive bonding surfaces.

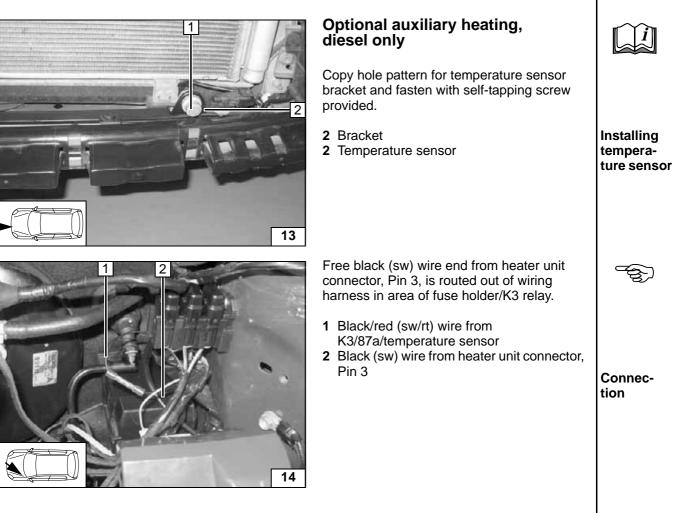
1 Temperature sensor, self-adhesive Dual Lock, right air duct

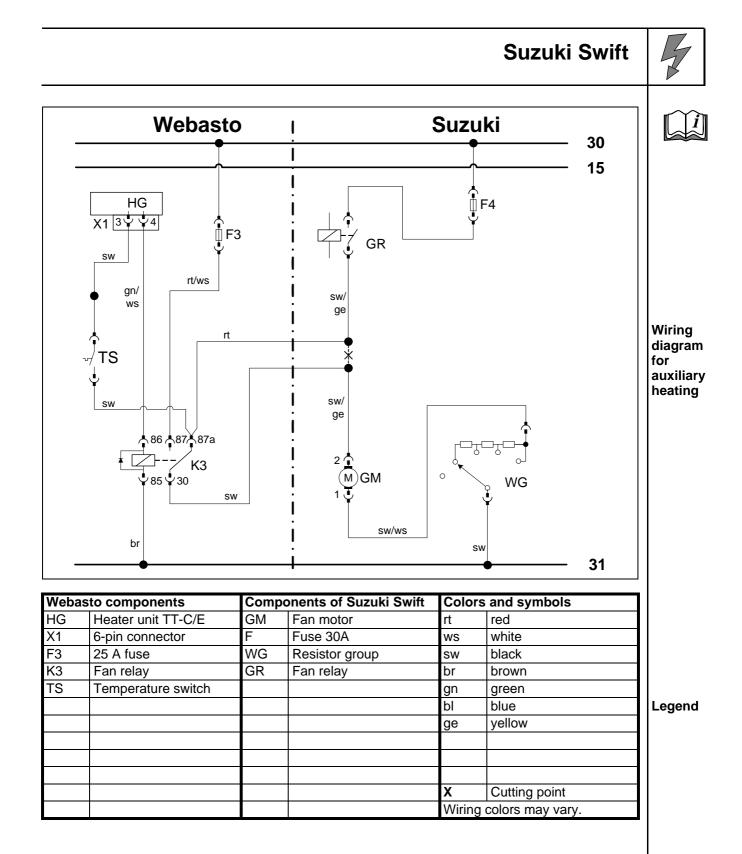
Temperature sensor for Telestart T100

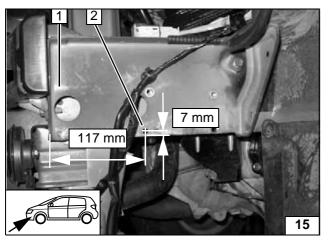
Temperature sensor

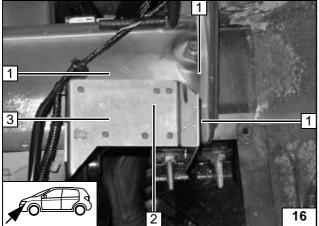
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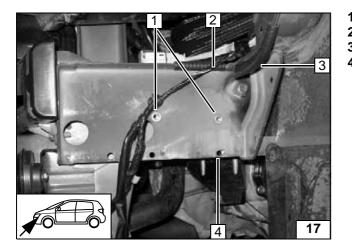


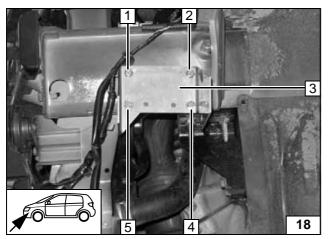






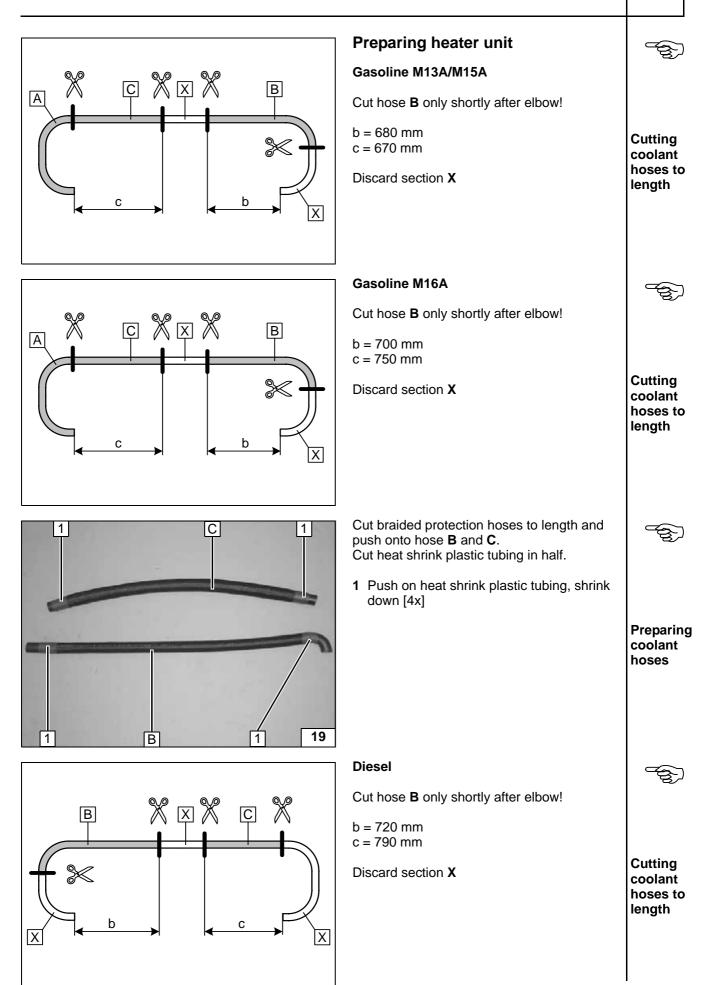




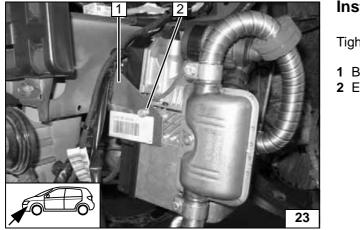


Preparing installation location	
<ol> <li>1 Original vehicle frame side member</li> <li>2 7 mm dia. hole</li> </ol>	
	Copying hole pattern
<ol> <li>Copy hole pattern</li> <li>Align bracket</li> <li>M6x20 bolt, M6 flanged nut</li> </ol>	
	Copying hole pattern
<ol> <li>Drill 9.1 mm dia. hole; install rivet nuts</li> <li>50 mm edge protection</li> <li>100 mm edge protection</li> <li>7 mm dia. hole</li> </ol>	Installing
	rivet nuts, installing edge protection section
<ol> <li>M6x20 bolt, spring lockwasher</li> <li>5 mm shim, M6x25 bolt, spring lockwasher</li> <li>Bracket</li> <li>5 mm shim, M6x25 bolt, M6 flanged nut</li> </ol>	
<ul> <li>5 mm shim, large diameter washer [2x], M6x25 bolt, M6 flanged nut</li> </ul>	Installing
	bracket

 $\Box \Box \Box 0$ 



#### Suzuki Swift Cut braided protection hoses to length and 1 С 1 push onto hose **B** and **C**. Cut heat shrink plastic tubing in half. **1** Push on heat shrink plastic tubing, shrink down [4x] Preparing coolant hoses 20 1 В 1 Exhaust pipe 1 2 a = 320 mm 2 Exhaust end section b = 180 mm Discard section X Preparing exhaust pipe b а Х Tighten EJOT screws to 10 Nm! 2 1 S-2 Exhaust muffler 1 Ejot stud, M6x30 spacer nut, M6x12 bolt, spring lockwasher Premounting heater unit 21 1 Exhaust pipe, p-clamp [2x], rubber isolator 1 2 T-pipe end section, p-clamp, rubber isolator 3 Align rubber isolator Premounting heater unit 3 2 22



# 

#### Installing heater unit

Tighten EJOT screws to 10 Nm!

- 1 Bracket
- 2 Ejot screw

Tighten EJOT screws to 10 Nm! Insert two washers between heater unit and bracket at position **x**.

- 1 Bracket 2 Eist scrow [
- 2 Ejot screw [3x]

Tool Sector

T S

Installing heater unit

Installing heater unit

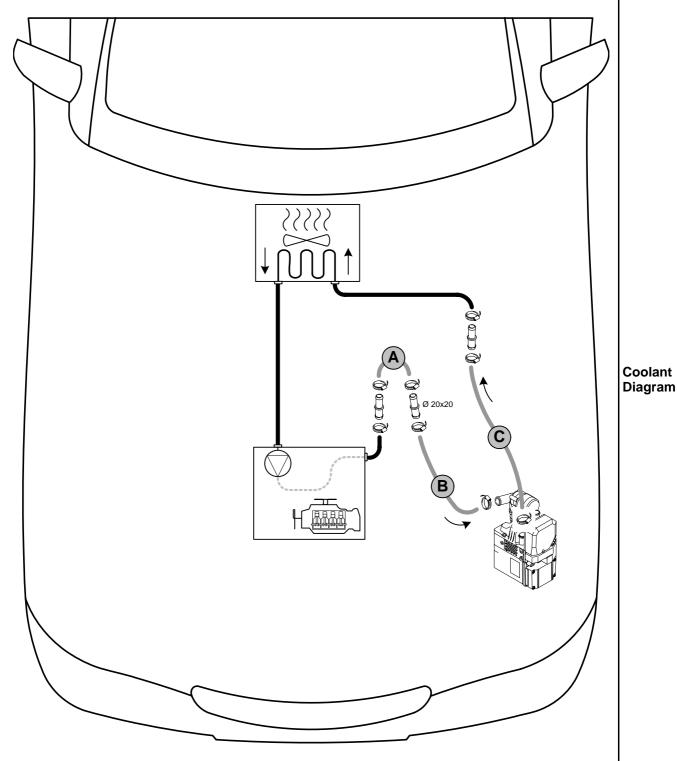
#### Coolant for gasoline engine

#### WARNING!

Tighten all hose clamps to 2.0 + 0.5 Nm.

Any coolant running off should be collected using an appropriate container. Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged! When installing the coolant hose, the heater unit must be filled with coolant.

The connection should be "inline" based on the following diagram:

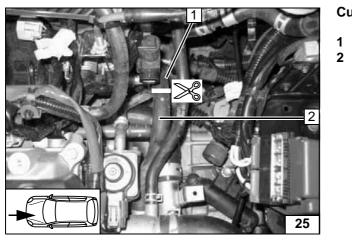


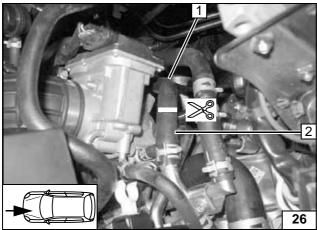
All hose clamps = 16-27 mm dia.! All connecting pipes without a specific designation **M13A** and **M15A** = dia. 15x20! All connecting pipes without a specific designation **M16A** = dia. 17x20!

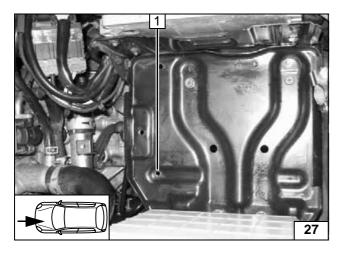
<u>}</u>

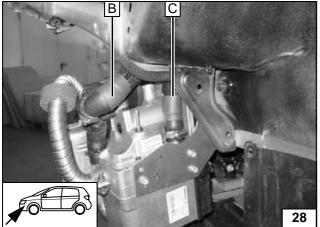
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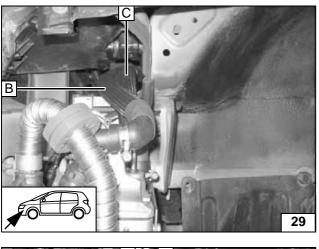
C	utting point on M13A and M15A	
	Hose section of heat exchanger inlet Engine outlet hose section	
		Cutting point
C	utting point on M16A	
	Hose section of heat exchanger inlet Engine outlet hose section	
		Cutting point
A	Il gasoline	
D	rill 7 mm dia. hole as shown.	لريح
1	7 mm dia. hole	

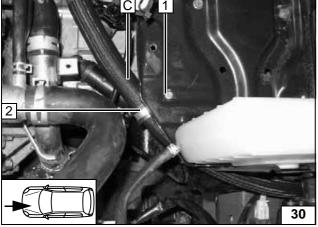


Connect-ing heater unit



Routing of coolant hoses





Ensure sufficient distance to neighboring components.

- 1 M6x20 bolt, M6 flanged nut
- 2 Rubber-coated pipe clamp, 29 mm dia.

Routing in engine compartment

(A)

Ensure sufficient distance to neighboring components.

1 Cable tie [2x]



Ś

Before connecting, fill the water hoses with coolant.

Ensure sufficient spacing to shift linkage.

- 1 Hose on heat exchanger inlet
- 3 Hose of engine outlet
- 2 Spacer bracket

Connection on heat exchanger inlet and engine outlet

3

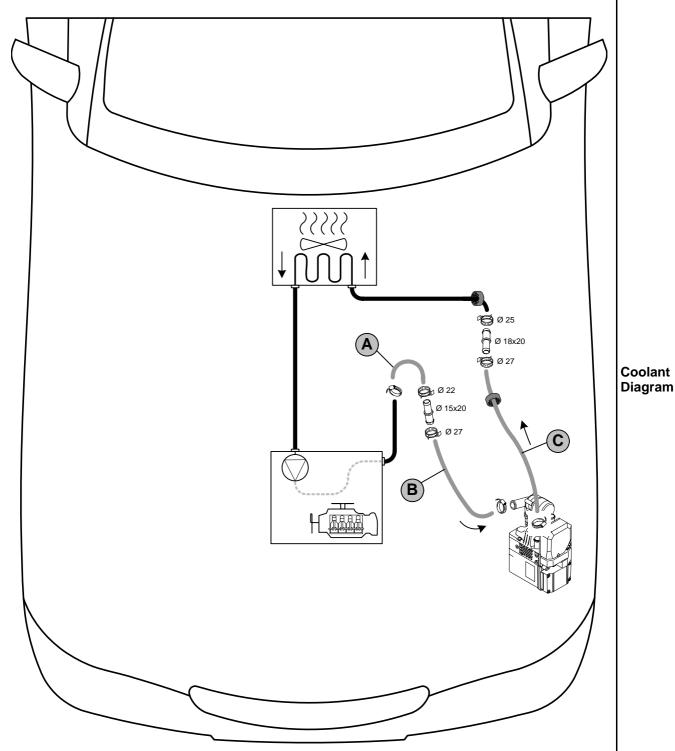
#### Coolant for diesel engine

#### WARNING!

Tighten all hose clamps to 2.0 + 0.5 Nm.

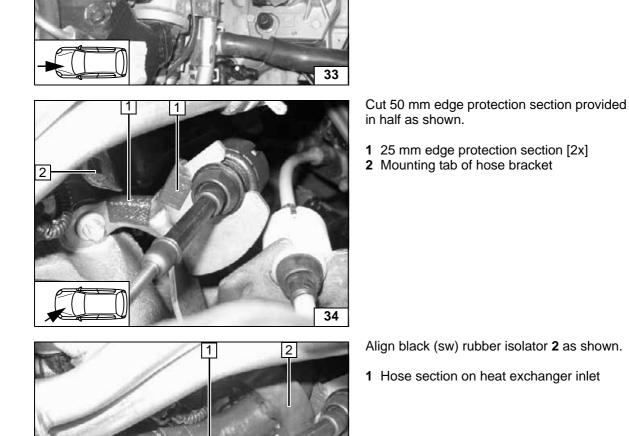
Any coolant running off should be collected using an appropriate container. Install hoses so that they are kink-free. Unless specified otherwise, always fasten using cable ties. Position clamps so that no other hose can be damaged! When installing the coolant hose, the heater unit must be filled with coolant.

The connection should be "inline" based on the following diagram:



Remove original vehicle clamp and discard. Remove original vehicle hose bracket and discard.

Hose section of heat exchanger inlet
 Connection piece for engine outlet



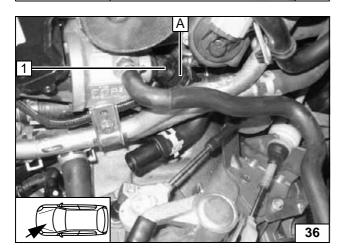
Installing rubber isolator

S-

Cutting point

(AS)

Installing edge protection section



Install molded hose **A** as shown.

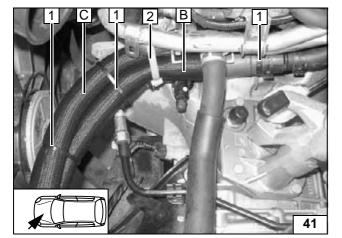
35

1 Connection piece for engine outlet

3

# Suzuki Swift 1 B С Connect-ing heater unit 37 В Routing of coolant hoses 38 Align black (sw) rubber isolator 1 as shown. 2 Hose section on heat exchanger inlet **Connect**ing heat exchanger inlet 39 Connection on engine outlet 40

- 1 Cable tie [3x]2 Green (gn) cable tie



42

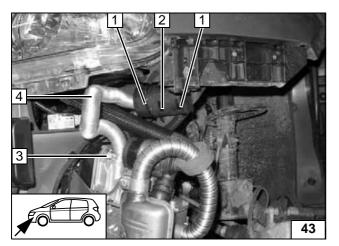
Routing of coolant hoses

1

Fasten coolant hoses on frame of radiator fan with cable ties 1 [2x each] as shown. (Leger

Routing of coolant hoses





#### **Combustion air**

Ensure proper installation position of combustion-air intake muffler, see "Installation Instructions".

- 4 Combustion-air intake pipe
- 3 27 mm dia. hose clamp
- 2 Combustion-air intake muffler
- **1** Cable ties [2x] on existing holes



Installing intake muffler

#### Fuel

#### **CAUTION!**

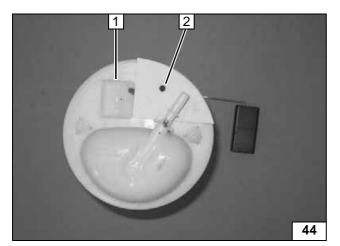
Open the vehicle's fuel tank cap, ventilate the tank and then re-close the tank lock.

Catch any fuel running off with an appropriate container.

Install fuel line and metering-pump wiring harness so that they are protected against stone impact. Unless specified otherwise, always fasten using cable ties. Mount the fuel line and wiring harness with rub protection on sharp edges.

#### WARNING!

The fuel line and wiring harness are routed to the metering pump in as shown in the wiring harness routing diagram.

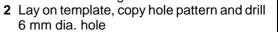


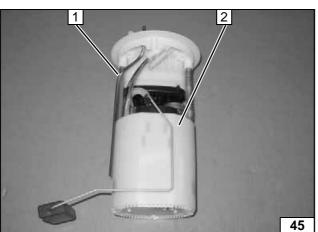
#### Fuel removal on gasoline engines

Fuel-tank sending unit, Version A

Remove fuel-tank sending unit in accordance with manufacturer's instructions.

1 Fuel-tank sending unit

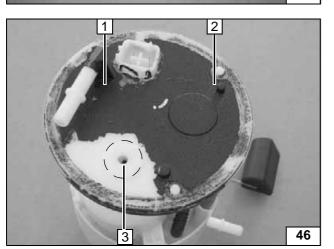




Shape fuel standpipe according to template on page 31, cut to length and install, see "installation instructions".

- 2 Fuel-tank sending unit
- 1 Fuel standpipe





#### Removing fuel with gasoline engine

Fuel-tank sending unit, Version B

Remove fuel-tank sending unit in accordance with manufacturer's instructions. Remove coating **2** in area of installation location of fuel standpipe.

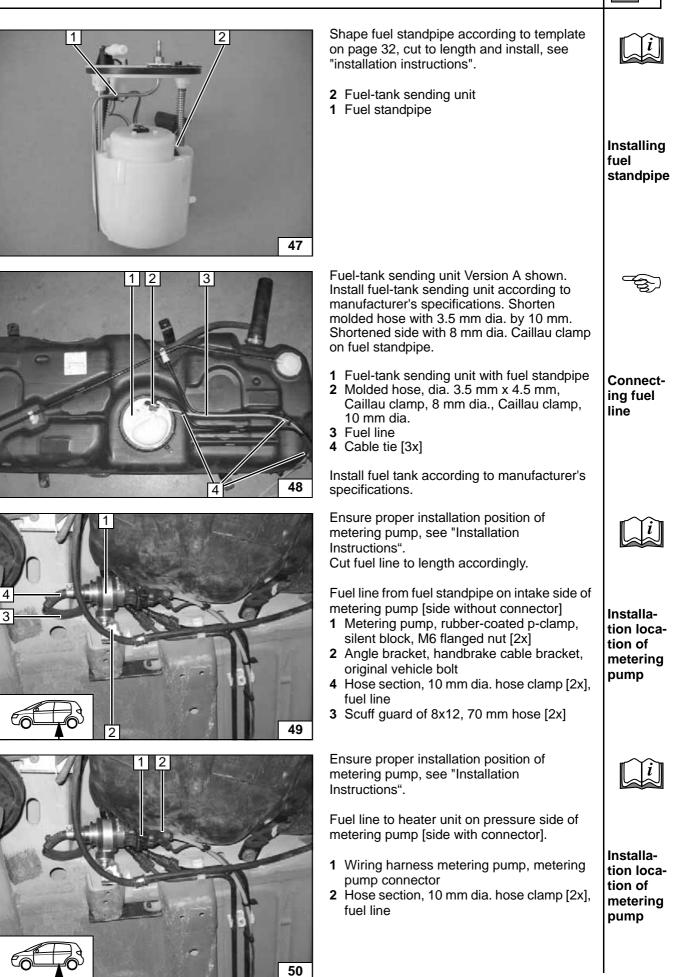
- 1 Fuel-tank sending unit
- 3 Drill 6 mm dia. hole in center of stamped area as shown



Removing fuel



Removing fuel



1 Mecanyl fuel line

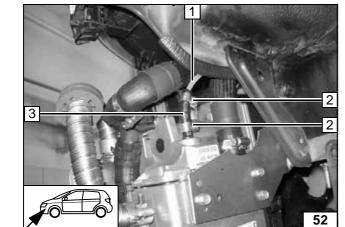
1

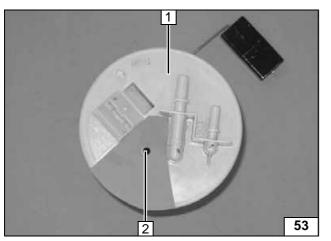
2

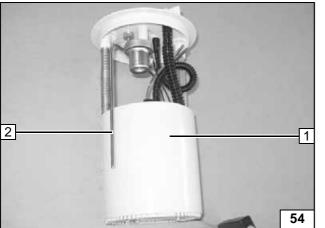
51

- 2 Metering pump wiring harness
- 3 Original vehicle fuel lines

Installing lines



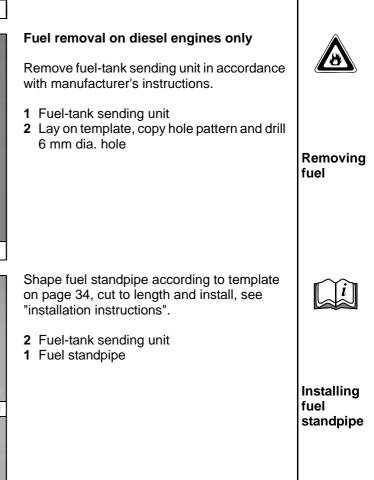


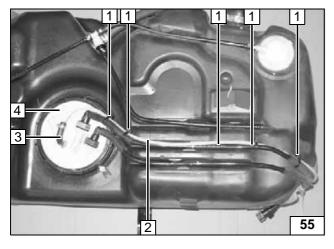


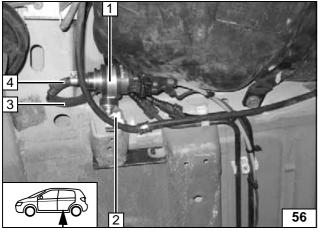
1	Mecanyl	fuel	line
•	mecany	ruer	III IC

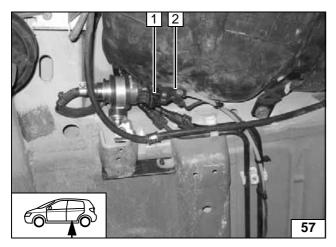
- **2** 10 mm dia. hose clamp [2x]
- 3 Hose section

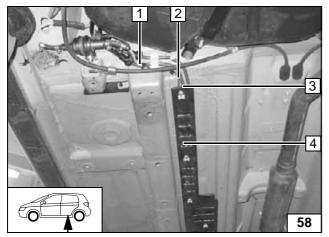
Connection on heater unit











Install fuel-tank sending unit according to manufacturer's specifications. Shorten molded hose with 3.5 mm dia. by 10 mm. Shortened side with 8 mm dia. Caillau clamp on fuel standpipe.

- 4 Fuel-tank sending unit with fuel standpipe3 Molded hose, dia. 3.5 mm x 4.5 mm,
- Caillau clamp, 8 mm dia., Caillau clamp, 10 mm dia.
- 2 Fuel line
- 1 Cable tie [5x]

Install fuel tank according to manufacturer's specifications.

Ensure proper installation position of metering pump, see "Installation Instructions". Cut fuel line to length accordingly.

Fuel line from fuel standpipe on intake side of metering pump [side without connector]

- 1 Metering pump, rubber-coated p-clamp, silent block, M6 flanged nut [2x]
- 2 Angle bracket, handbrake cable bracket, original vehicle bolt
- 4 Hose section, 10 mm dia. hose clamp [2x], fuel line
- **3** Scuff guard of 8x12, 70 mm hose [2x]

Ensure proper installation position of metering pump, see "Installation Instructions".

Fuel line to heater unit on pressure side of metering pump [side with connector].

- 1 Wiring harness metering pump, metering pump connector
- 2 Hose section, 10 mm dia. hose clamp [2x], fuel line
- Installation location of metering pump

- 1 Mecanyl fuel line
- 2 Metering pump wiring harness
- 3 Original vehicle fuel lines
- 4 Cover of original vehicle fuel line (if installed)

Installing lines

Connect-

ing fuel

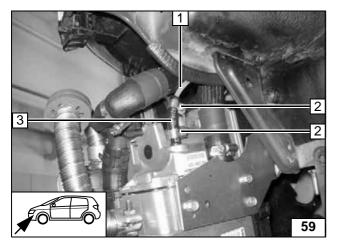
line

tion location of metering pump

Installa-

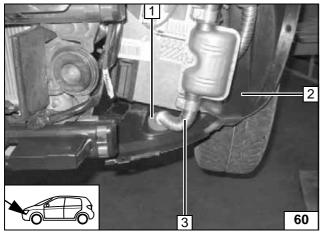






- Mecanyl fuel line
   10 mm dia. hose clamp [2x]
- **3** Hose section

Connec-tion on heater unit



#### **Exhaust system**

Reinstall wheel well trim on left.

- 3 Exhaust tail pipe
- 2 Wheel well trim
- 1 42 mm dia. hole, rubber isolator

Machining wheel well trim

Tog

1 Exhaust tail pipe, rubber isolator





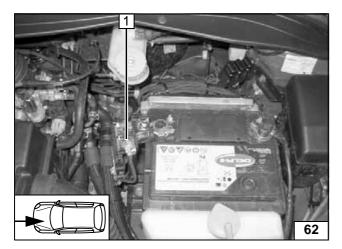
#### **Final Work**

#### WARNING!

Reassemble the disassembled components in reverse order. Check all hoses, clamps and all electrical connections for firm seating. Secure all loose cables using cable ties. Only use manufacturer-approved coolant.

Spray the heater unit components with anti-corrosion wax (Tectyl 100K, Order No. 111329).

- Connect the batteries
- Fill and bleed the coolant circuit according to the vehicle manufacturer's specifications.
- Adjust the digital timer if installed
- Make settings on A/C control panel according to the "Operating Instructions for End Customer".
- Check the proper operation of the additional heater, see the operating instructions/installation instructions.
- Attach the "Switch off additional heater before refueling" sticker to the left-hand B-pillar.



Depending on vehicle equipment, replace claw cable lug present on positive wire with 8 mm claw cable lug provided.

1 Connect positive wire to claw cable lug on positive battery terminal

Connecting positive wire



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#### **Operating Instructions for End Customer**

Please remove page and add to the vehicle operating instructions.

#### Note:

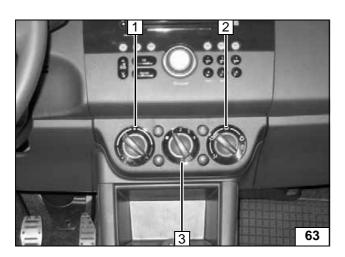
We recommend matching the heating time to the driving time. Heating time = driving time

#### Example:

For a driving time of approx. 20 min. (in one direction), we recommend not exceeding a switch-on time of 20 min.

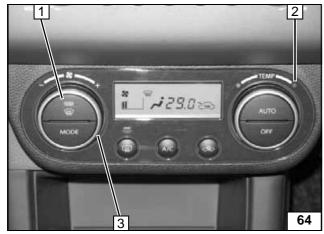
If the summer/winter switch option has been installed, this must be switched in accordance with the time of year. The heater unit will then only switch on the vehicle fan to ventilate the vehicle interior in the position Winter  $\Im$  heat and in the position Summer  $\Im$ .

Before parking the vehicle, make the following settings:



- 1 Set temperature to "hot"
- 2 Air outlet to windshield
- 3 Set fan speed to "1" or max. "2"

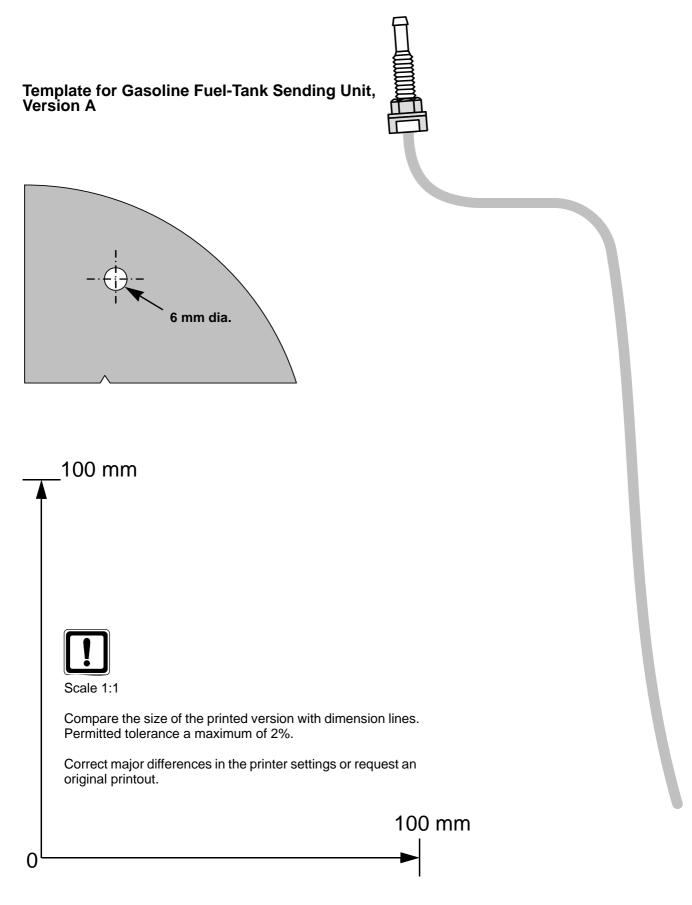
Without automatic air-conditioning



- 1 Air outlet to windshield
- 2 Set temperature to "29°C"
- 3 Set fan speed to "1" or max. "2"

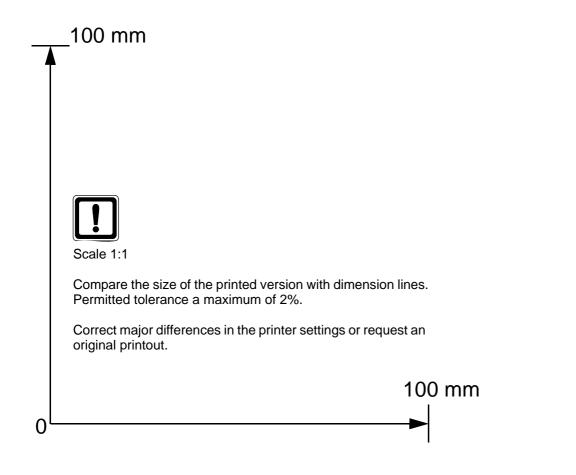
Automatic air-conditioning

#### Template for Gasoline Fuel Standpipe, Version A



Template for Gasoline Fuel Standpipe, Version B





#### Template for Diesel fuel standpipe

#### Template for Fuel-Tank Sending Unit on diesel vehicles

