

## 64 Heating system and air conditioning

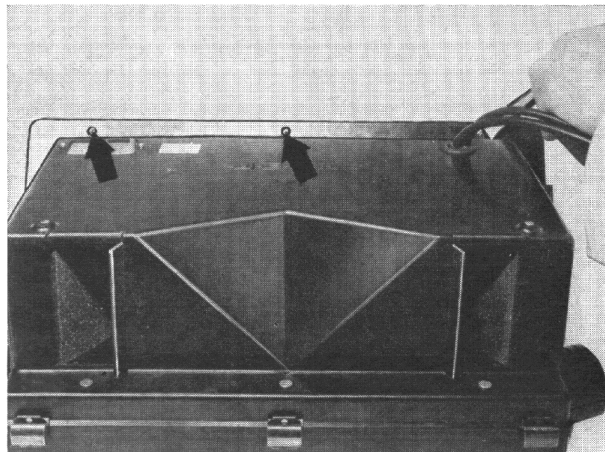
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## 64 11 061 Renewing Bowden cable for heater valve

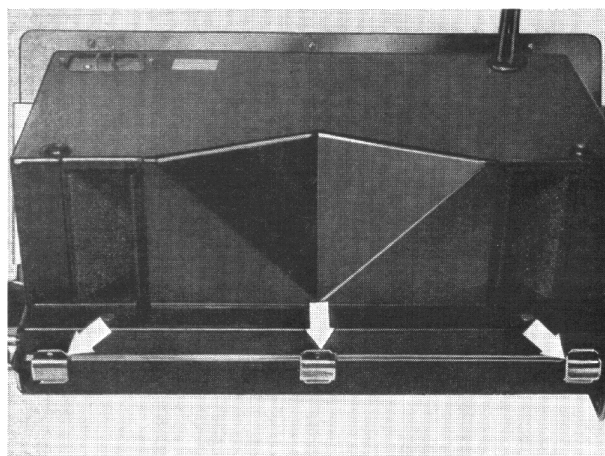
Remove and fit heater. 64 11 200.

Loosen rivet connection.

**Fitting instruction:** Rivet heater together with tubular rivets, or bolt together with hexago bolts M 4 x 10 and M 4 hexagon nuts.

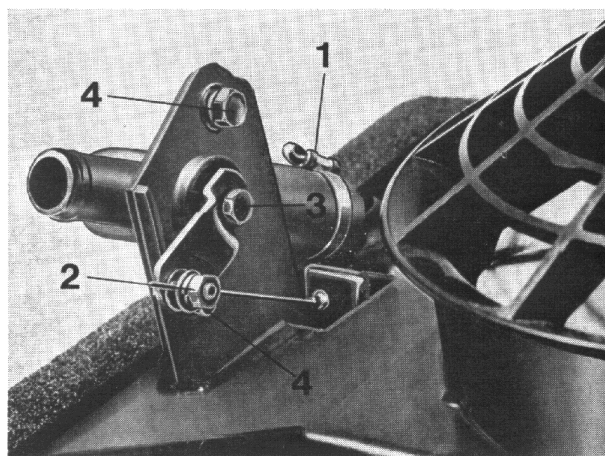


Remove clamps.

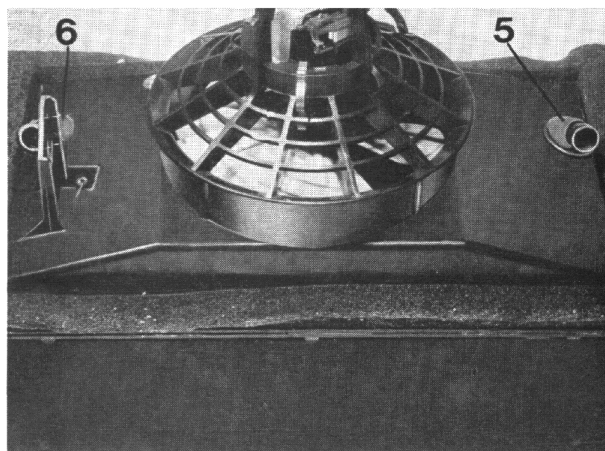


Loosen hose clamp (1).

Slacken clamp screw (2), unscrew screw (3) and retaining screws (4).



Remove rubber sleeve (5 and 6).

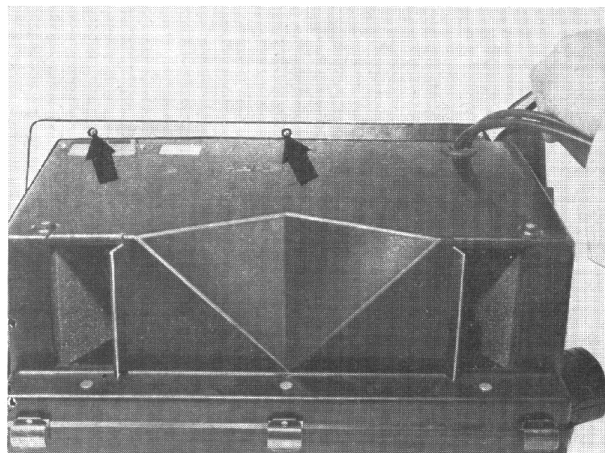


## 64 11 071 Renewing Bowden cable for footwell ventilation

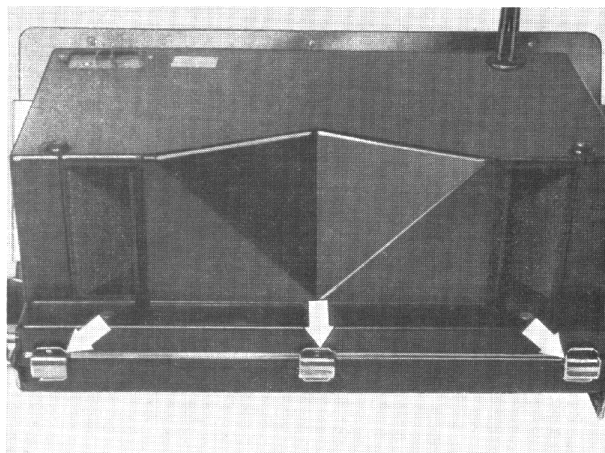
Remove and fit heater. 64 11 200.

Loosen rivet connection.

**Fitting instruction:** Rivet heater together with 3 tubular rivets or bolt together with 3 hexagon bolts M 4 x 10 and M 4 hexagon nuts.

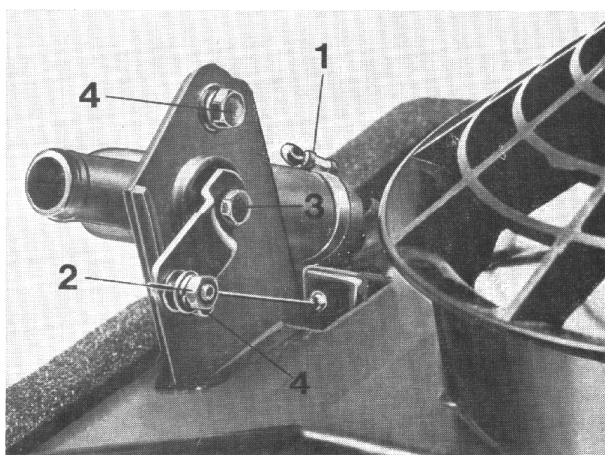


Remove clamps.

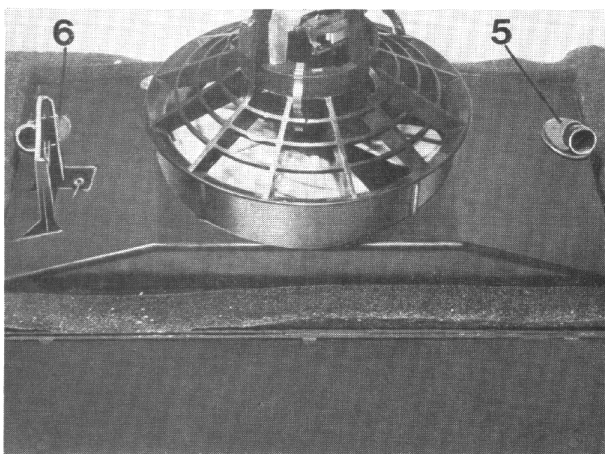


Loosen hose clamp (1).

Slacken clamp screw (2), unscrew screw (3) and retaining screws (4).

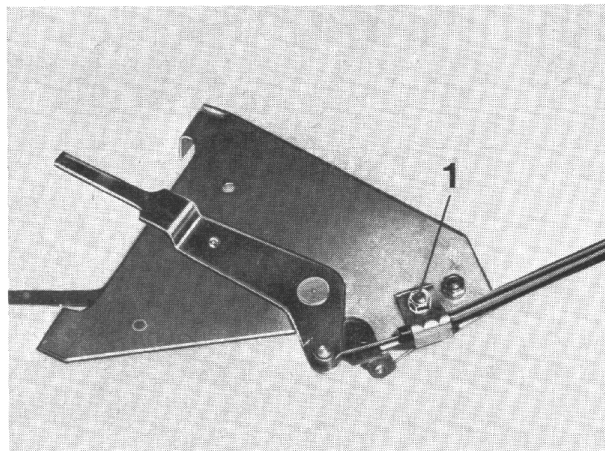


Remove rubber sleeve (5 and 6).



Loosen screw (1) for clamp on selector gate.  
Detach Bowden cable.

**Fitting instruction:** For adjustment of  
Bowden cable see page 64—11/12.

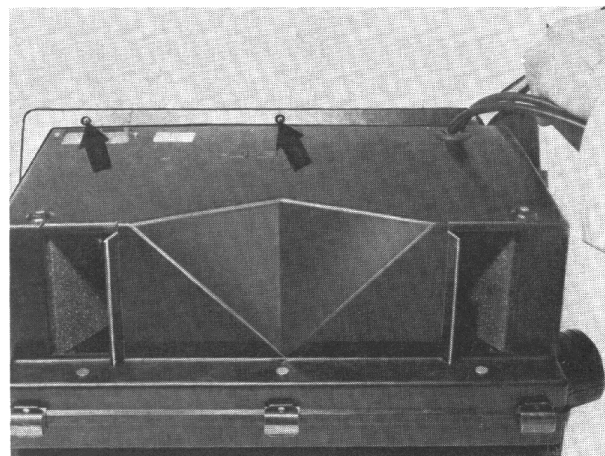


#### 64 11 081 Renewing Bowden cable for screen ventilation

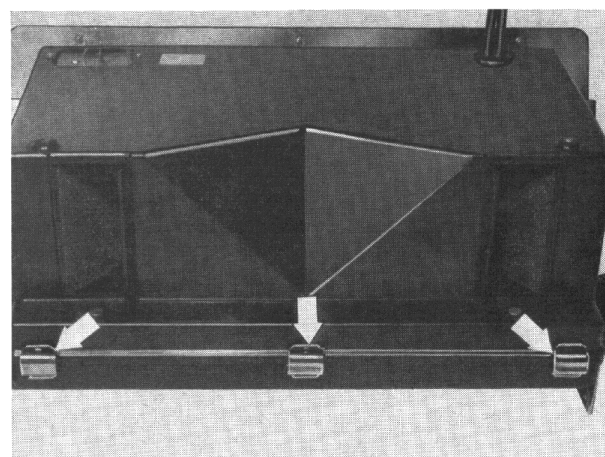
Remove and fit heater. 64 11 200.

Loosen rivet connection.

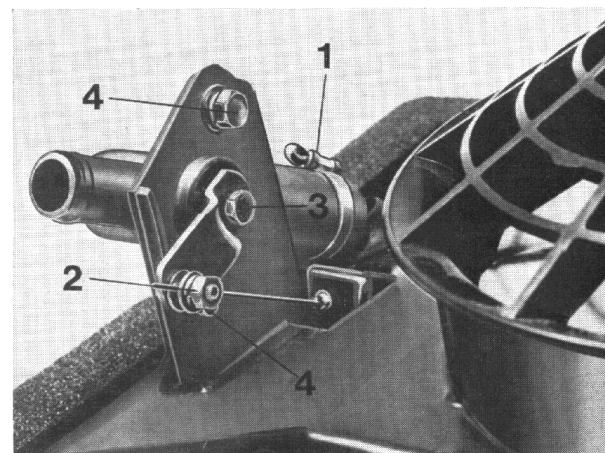
**Fitting instruction:** Rivet heater together with tubular  
rivets, or bolt together with hexagon bolts M 4 x 10  
and M 4 hexagon nuts.



Remove clamps.



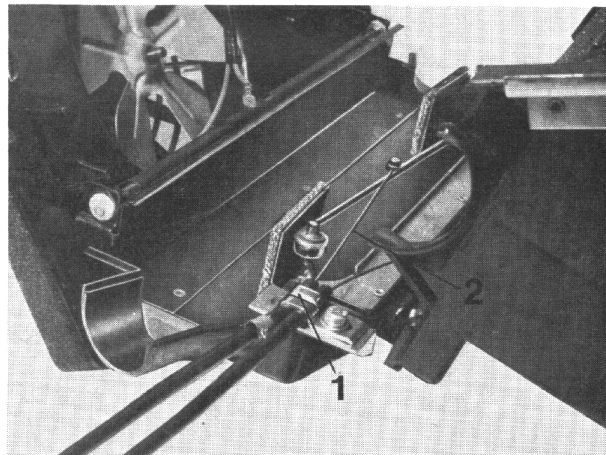
Loosen hose clamp (1).  
Slacken clamp screw (3) and retaining screws (4).





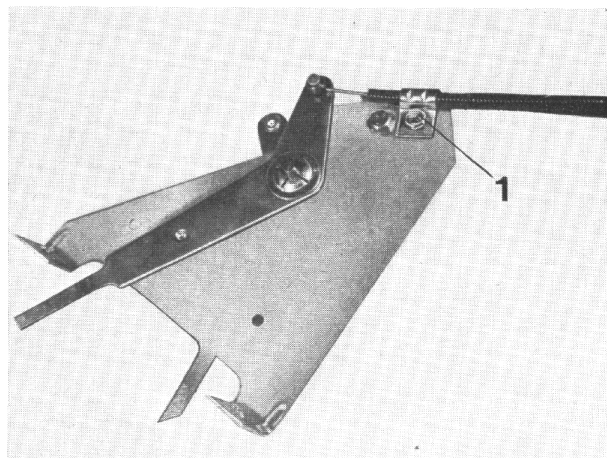
Remove clamp (1) and detach Bowden cable (2).

**Fitting instruction:** For adjustment of Bowden cable see page 64—11/12.



Loosen screw (1) of clamp on selector gate.  
Detach Bowden cable.

**Fitting instruction:** For adjustment of Bowden cable see page 64—11/12.

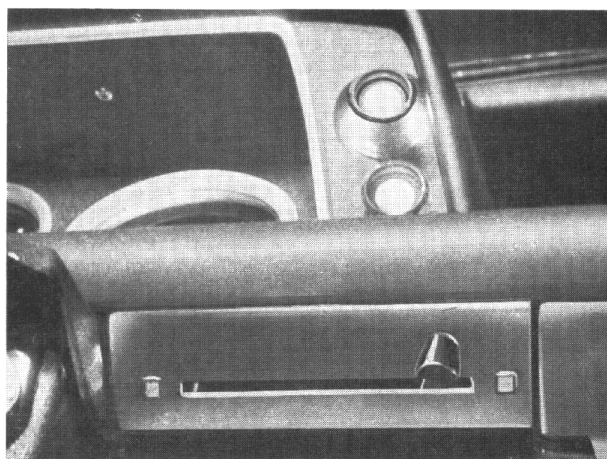


## 64 11 200 Removing and fitting heater

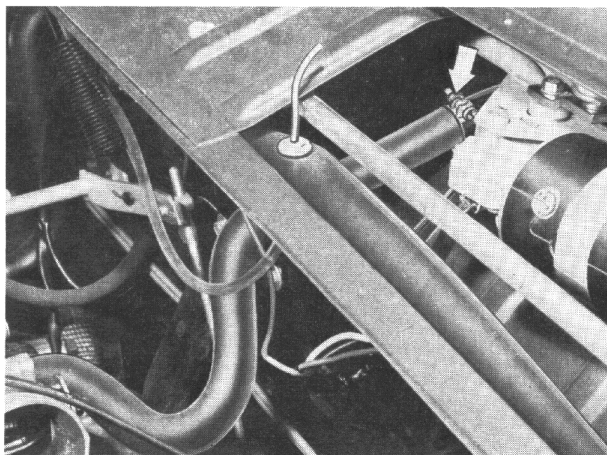
Disconnect negative lead at battery.

Move heater valve lever to right to „WARM“ and drain off cooling water.

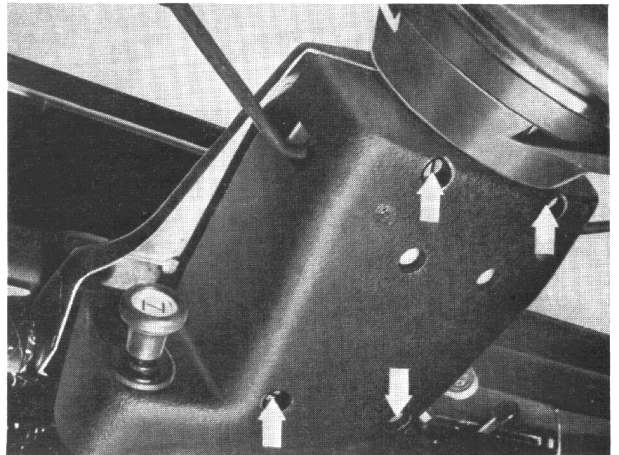
**Fitting instruction:** Fill up with cooling water and bleed cooling system.



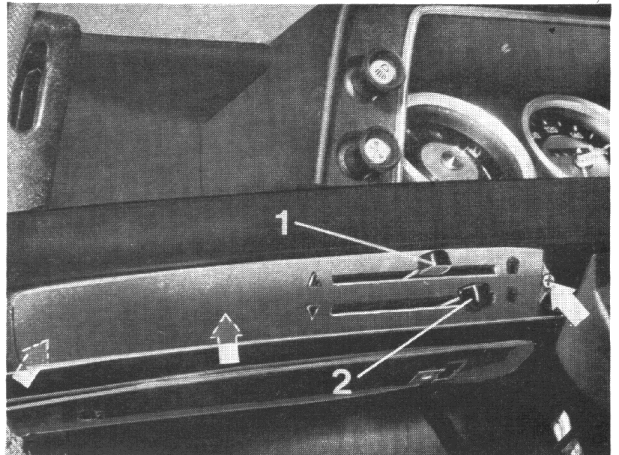
Loosen hose clamp and remove return hose.



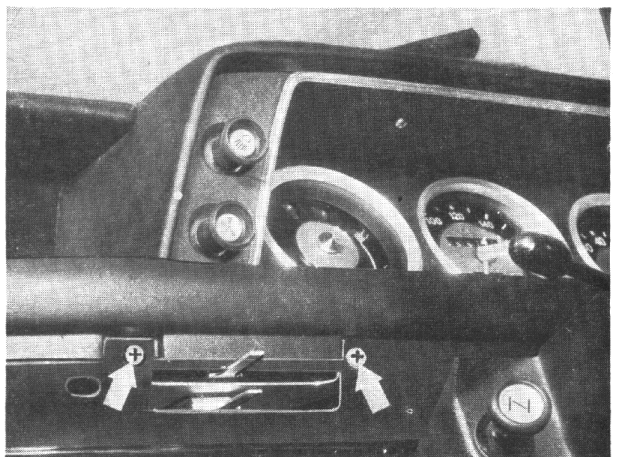
Loosen screws and remove upper section of casing.  
Pull off knob (1 and 2).



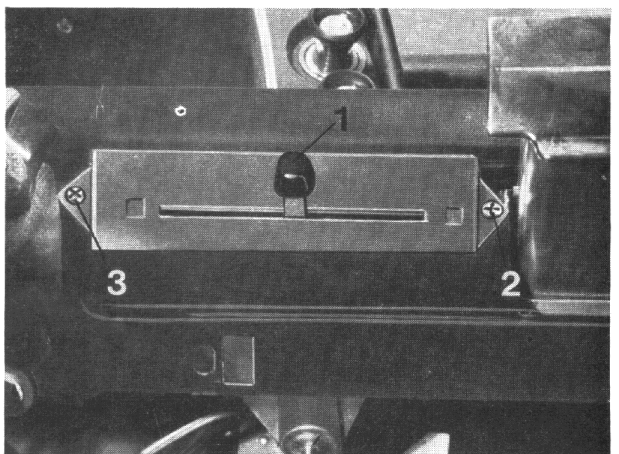
Loosen inner knurled nuts as well as outer Philips head screw.  
Remove outer trim panel.  
**Fitting instruction:** Note fitted position of the knobs.



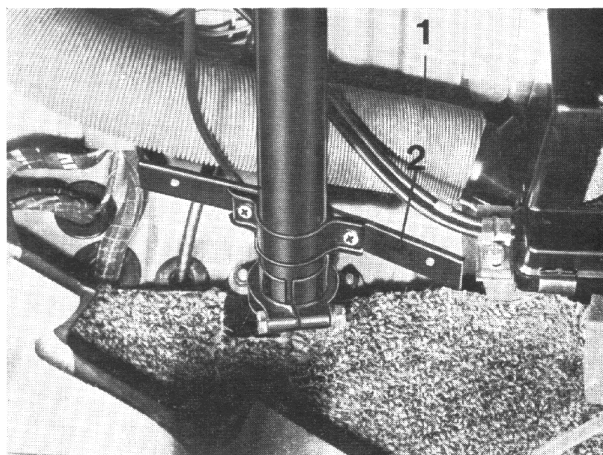
Unscrew screws.



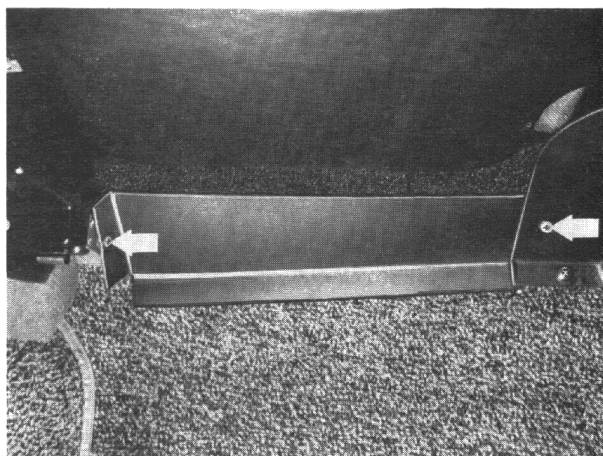
Pull out ashtray, pull off knob (1) and loosen screws (2) and (3).



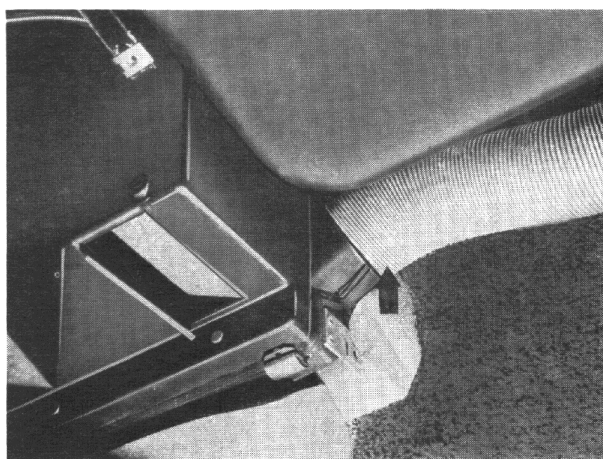
Pull off left-hand hot air hose (1) and slightly turn retaining bracket (2) for outer tube casing.



Remove trim panel beneath the glove compartment.



Pull off right-hand hot air hose and carefully lift out heater.



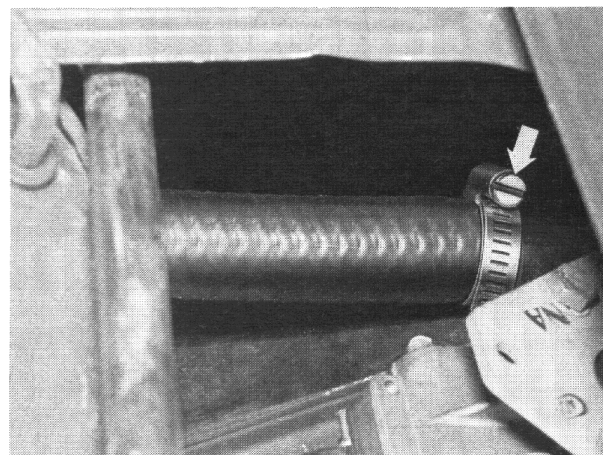
**Heater for 'touring' and 1971 models: removing and installing.**

Detach battery negative lead.

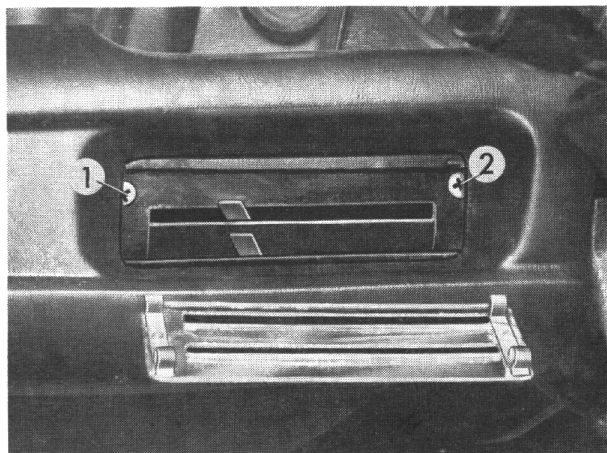
Move heater lever to the right ('Warm') and drain coolant.

**When installing:** Add fresh coolant and bleed cooling system.

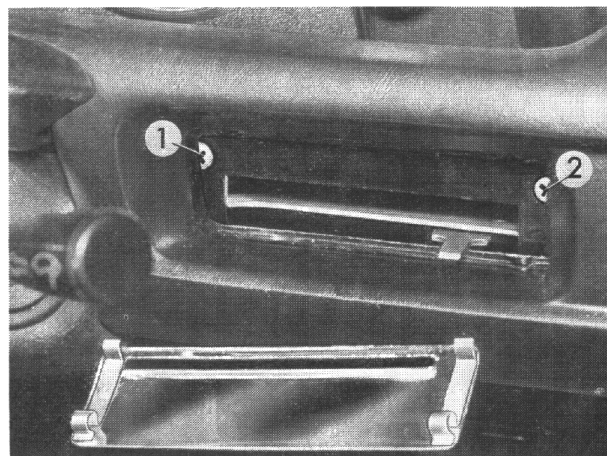
Loosen hose clip and take off return hose.



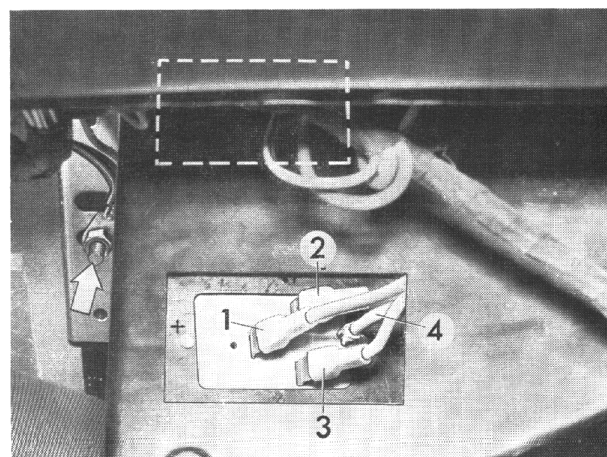
Pull off heater control lever knobs.  
Lift out lever surround panel at left.  
Loosen screws (1) and (2).  
Pull levers out downwards.



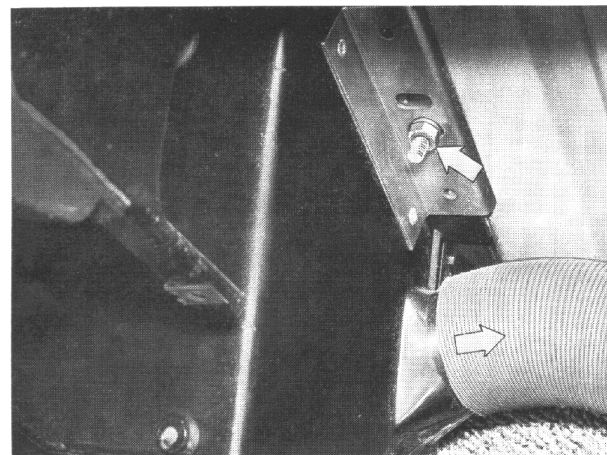
Pull off knob.  
Lift surround out at right.  
Loosen screws (1) and (2).  
Pull lever out downwards.



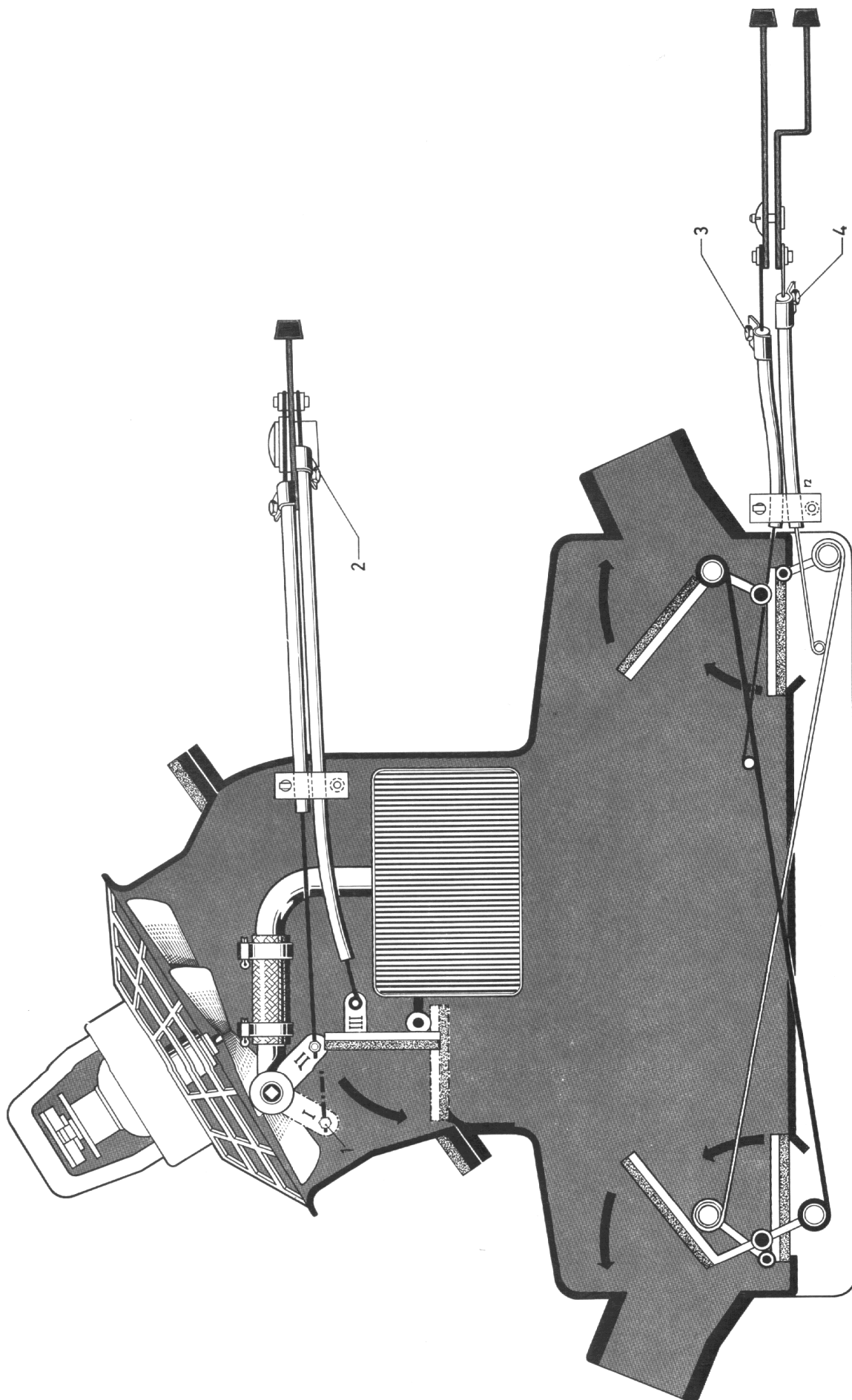
Pull off leads.  
(1) blue/black  
(2) green/yellow  
(3) blue/red  
(4) brown  
Loosen retaining nut at left.  
**When installing:** Secure earth (ground) lead (brown colour) with the nut.



Loosen trim at right and pull off right hand warm air hose.  
Loosen retaining nut at right.





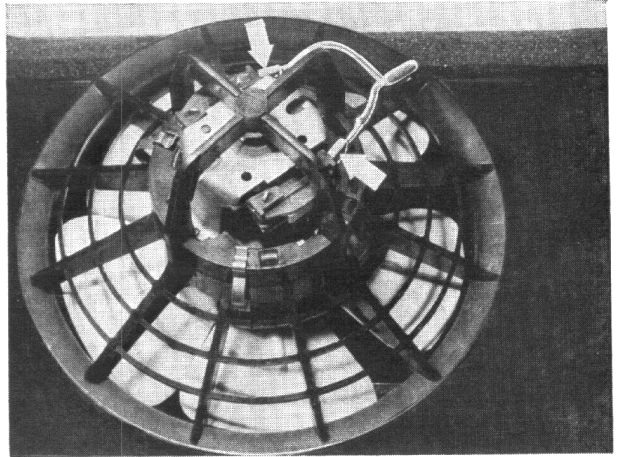


Test: Heater valve at position I = warm  
 The mixing flap III must be closed in this position.  
 Adjustment is effected with the clamp screw (1) at the  
 swinging arm of the heater valve.  
 Position II = cold.

Adjustment of air mixing, demister and footwell flaps is  
 effected at the Bowden cable retaining screws 2, 3 and 4.  
 The flaps are lubricated with Ecubsol at the bearing points.

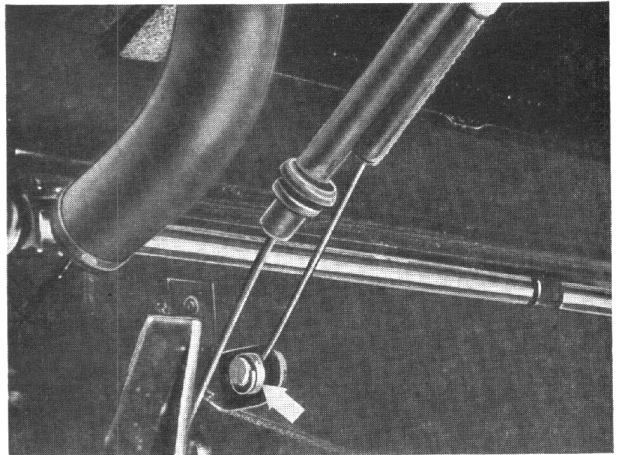


Pull of cable.

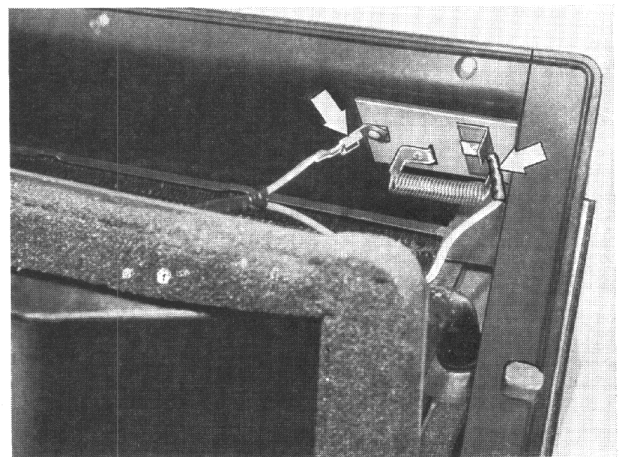


Disconnect heater valve bowden cable.

**Note when fitting:** For correct adjustment of bowden cable see page 64—11/15.



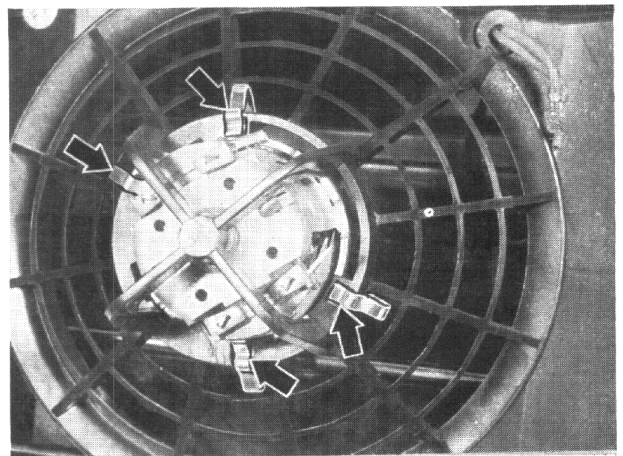
Pull off cable in housing.



Open clamps and take out motor to the bottom together with fan.

**Important:** The motor and fan have been balanced together.

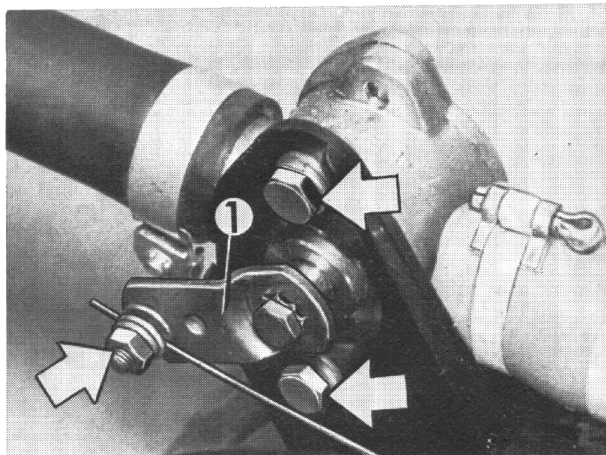
Never remove the fan from the shaft.



## 64 11 271 Renewing water valve for heater

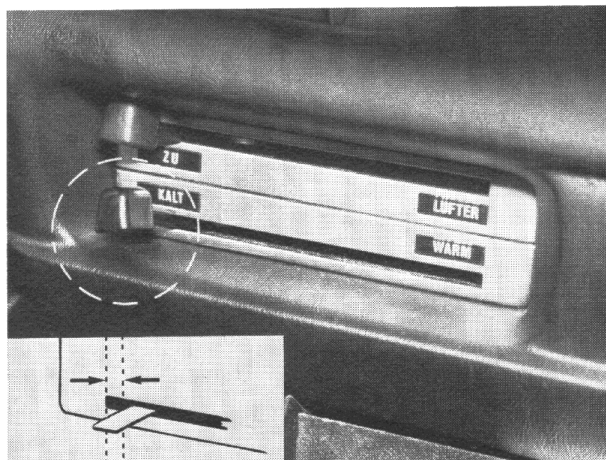
Detach control cable from water valve.  
Release hoses.  
Remove water valve from its mount.

**Note when fitting:** Before securing the water valve in position, insert the control cable in the clamp screw.  
Secure water valve.  
Push the control lever (1) at the water valve in the direction of the passenger compartment until it reaches its limit position (closed).

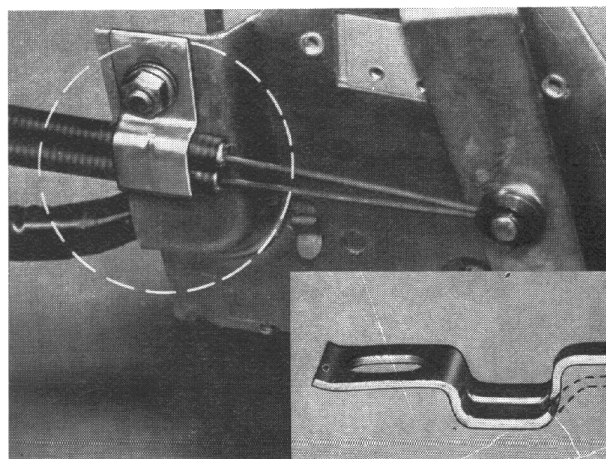


Move heater control lever to the left until it is 1 mm (0.04 in) from its stop (cold).  
Clamp control cable tight at the water valve.  
Top up coolant.

**Note:** To prevent corrosion of the water valve, add 21cm<sup>3</sup> (1.25 in<sup>3</sup>) of Shell "Donax C" corrosion inhibiting oil to the coolant.



**Note:** If the control cable has been pulled out of its holding clip as a result of a sticking water valve, the front shelf and the instrument panel covering must be partly removed.  
Remove holding clips, bend back slightly and re-attach control cable.  
Adjust as described above.

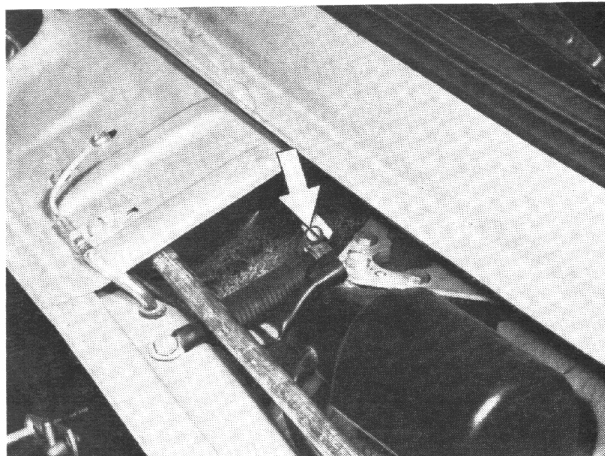


## 64 21 071 Replacement of left-hand warm water hose for heater unit

Drain coolant.

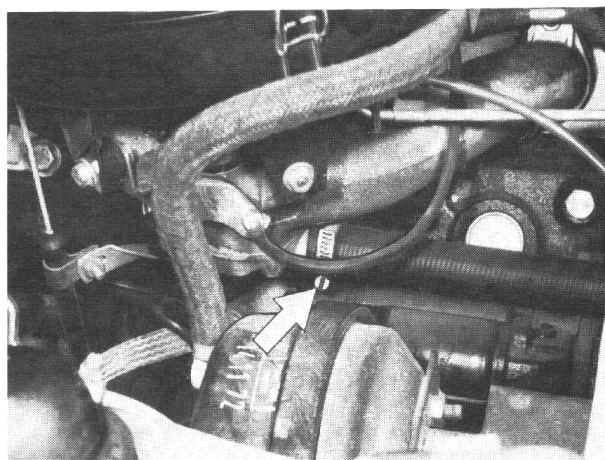
Open hose clamp on heater unit and pull off warm water hose.

**Note when fitting:** Top up coolant. For bleeding coolant system, see „note when fitting“ 17 11 000.



Open hose clamp on intake pipe and pull off warm water hose.

**Note when fitting:** Make sure that warm water hose has correct diameter.

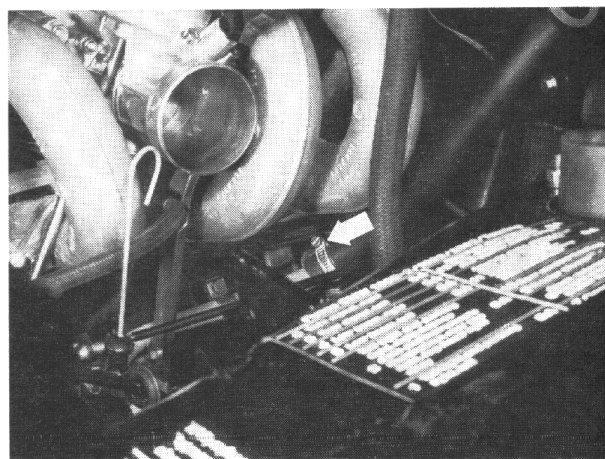


### Applicable to tii:

Remove air filter.

Open hose clamp and pull warm water hose off reflow pipe.

**Note when fitting:** Make sure that warm water hose has correct diameter.



## 64 21 081 Replacement of right-hand warm water hose for heater unit

Drain coolant.

Disconnect warm water hose from water valve.

**Note when fitting:** Top up coolant.

For bleeding coolant system, see „note when fitting“ 17 11 000.



### Electrical system – trouble shooting

Trouble	Cause	Remedy
Rear light and side light do not go on on one side of the car	<ul style="list-style-type: none"> <li>a) Bulbs defective</li> <li>b) Fuse defective</li> <li>c) Light switch defective</li> <li>d) Power supply interrupted</li> </ul>	<ul style="list-style-type: none"> <li>a) Replace bulbs</li> <li>b) Repair short circuit and replace fuse</li> <li>c) Replace light switch</li> <li>d) Repair power supply</li> </ul>
One low-beam headlight does not go on	<ul style="list-style-type: none"> <li>a) Bulb defective</li> <li>b) Power supply interrupted</li> </ul>	<ul style="list-style-type: none"> <li>a) Replace bulb</li> <li>b) Repair power supply</li> </ul>
Both low-beam headlights do not go on	<ul style="list-style-type: none"> <li>a) Both bulbs defective</li> <li>b) Light switch defective</li> <li>c) Power supply interrupted</li> </ul>	<ul style="list-style-type: none"> <li>a) Replace both bulbs</li> <li>b) Replace light switch</li> <li>c) Repair power supply</li> </ul>
When light and low-beam switch is pulled, neither of the headlights go on, although they do go on when the light flasher is operated	<ul style="list-style-type: none"> <li>a) Light switch defective</li> <li>b) Low-beam lever defective</li> <li>c) Wires leading to light switch or low-beam lever interrupted</li> </ul>	<ul style="list-style-type: none"> <li>a) Replace light switch</li> <li>b) Replace low-beam lever</li> <li>c) Repair power supply</li> </ul>
Headlights do not come on when headlight flasher is operated, either	<ul style="list-style-type: none"> <li>a) Both bulbs defective</li> <li>b) Low-beam lever defective</li> <li>c) Wires leading to low-beam lever interrupted</li> </ul>	<ul style="list-style-type: none"> <li>a) Replace bulbs</li> <li>b) Replace low-beam lever</li> <li>c) Repair power supply</li> </ul>
Screenwiper motor does not work	<ul style="list-style-type: none"> <li>a) Fuse defective</li> <li>b) Screenwiper switch defective</li> <li>c) Contact in turn indicator lever defective</li> <li>d) Screenwiper motor defective</li> <li>e) Power supply interrupted</li> </ul>	<ul style="list-style-type: none"> <li>a) Repair short circuit and replace fuse</li> <li>b) Replace screenwiper switch</li> <li>c) Replace turn indicator lever</li> <li>d) Replace screenwiper motor</li> <li>e) Repair power supply</li> </ul>
Screenwiper motor operates at one speed only	<ul style="list-style-type: none"> <li>a) Plug connection in screenwiper switch interrupted</li> <li>b) Plug not connected properly to screenwiper switch</li> <li>c) Screenwiper motor defective</li> </ul>	<ul style="list-style-type: none"> <li>a) Repair interruption</li> <li>b) Connect plug properly</li> <li>c) Replace screenwiper motor</li> </ul>
Heater unit motor does not work	<ul style="list-style-type: none"> <li>a) Fuse defective</li> <li>b) Heater unit motor defective</li> <li>c) Blower switch defective</li> <li>d) Power supply interrupted</li> </ul>	<ul style="list-style-type: none"> <li>a) Repair short circuit and replace fuse</li> <li>b) Replace motor</li> <li>c) Replace blower switch</li> <li>d) Repair power supply</li> </ul>
Screenwasher does not eject water, but screenwipers work	<ul style="list-style-type: none"> <li>a) Screenwasher reservoir empty</li> <li>b) Hose to nozzles leaks</li> <li>c) Screenwasher pump defective</li> <li>d) Power supply to screenwasher pump interrupted</li> </ul>	<ul style="list-style-type: none"> <li>a) Fill in water</li> <li>b) Replace hose</li> <li>c) Replace screenwasher pump</li> <li>d) Repair power supply</li> </ul>
Screenwasher does not eject water, screenwipers do not work when screenwasher is actuated – but do work when screenwiper switch is pulled	<ul style="list-style-type: none"> <li>a) Fuse defective</li> <li>b) Contact in turn indicator lever defective</li> <li>c) Power supply interrupted</li> </ul>	<ul style="list-style-type: none"> <li>a) Replace fuse</li> <li>b) Replace turn indicator lever</li> <li>c) Repair power supply</li> </ul>