

SERVICE INSTRUCTIONS

500 SERIES Caravan cookers

To be carried out by an authorized person

GENERAL ACCESS TO GAS TRAIN IN HOB When servicing remember to disconnect the electrical supply. The gas manifold is attached to the hob and can be removed for service as follows:

1. Disconnect the power lead from the GPO.
2. Remove the fixing screws along each side of the cooker frame holding to release from cavity frame. Disconnect the 12V connections on the right-hand side of cooker
3. Remove the unit from the installed position by first sliding the appliance forward and disconnecting the gas supply tube from the left side. (Ensure that the gas supply has been turned off first).
4. Move the appliance to a suitable work area.
5. Drill out the pop rivets along either side of the hob and remove the screws holding the lid.
6. Where fitted disconnect the oven supply tube on the right-hand side. Remove the oven capillary tube. Remove oven thermocouple lock nut in the back of oven and disconnect the oven ignition wire.
7. Where fitted remove the fixing screws or spring clip holding the ignition pack to the right side of the grill compartment.
8. Lift the hob until clear of the side surround then move away guiding the thermocouple and ignition pack through the opening.
9. Lay the hob upside down and remove the grill shield.

Access is now available to all components excepting the oven burner and injector which can be accessed through the oven.

Removing the Grill Shield with cooker installed (All gas Model)

Note This can be done in the installed position.

1. Remove the grill side racks and unscrew the grill shield. These screws are along the front edge of the shield.
2. Slide the shield back to disconnect the ignition assembly from the rear of the grill burner.

Note: The grill shield for the Gas/Electric hob is not removeable while the cooker is installed. The front edge can be bent downwards for access to thermocouples and ignition wires etc.

Removing Oven /Grill Glass Drill out the two pop rivets on top of the door. Carefully lift the handle assembly off the top of the door while ensuring that the glass is supported. Remove the glass and replace with new glass.

Removing the Oven Door/Grill Door Hinge Assembly

1. First remove the glass. Disconnect the springs on the side of the cooker then drill out the rivets holding the hinges. Lift and draw the hinges out through the front

Removing Grill Burner (All Gas models only)

1. Remove the four hot plate burners.
2. Remove the Grill Shield to access Grill burner.
3. Drill out the four rivets holding the burner to the hob.
4. Lower the grill burner ensuring that the injector tube slides out of the venture hole.
5. When replacing the grill burner locate the injector tube through the two holes in the venture.

Removing the cooker lid with the cooker installed

- Remove the side fixing screws around the perimeter of the cooker surround.
- Tilt the cooker forward and locate a spacer between the rear trim and the bench so that the lid fixing screws are exposed.
- Remove the two screws from the rear left and right of the outer surround.
- Lift lid away.
- Reposition the lid and check that the rear right- hand striker plate is over the switch pin in the rear right-hand corner.
- Replace the fixing screws using a sealant
- Lift the lid to ensure that the striker plate activates the switch pin.

Removing the Hot Plate Burner Thermocouples

1. Remove the grill shield or in the case of the electric element models remove the front screws and bend the front edge of shield down at 45 degrees.
2. Remove the top burner and remove the lock nut from the thermocouple.
3. Disconnect the thermocouple from the rear of the gas valve and draw the thermocouple out
4. Replace the thermocouple and assemble in reverse order.

Removing the Grill Thermocouple

1. Remove or bend clear the grill shield. See relevant section proceeding.
2. Remove insulation from behind the gas valves where fitted.
3. Remove the lock nut from the thermocouple head.
4. Disconnect the thermocouple from the rear of the gas valve and draw the thermocouple out
5. Replace the thermocouple and assemble in reverse order.

Removing the Oven Thermocouple

1. Remove or bend clear the grill shield. See relevant section proceeding.
2. Remove fixing screws holding the cooker into the cavity and slide the cooker forward approximately 100mm.
3. Disconnect the faulty thermocouple from the rear of the thermostat and clear out through the side opening.
4. Insert the new thermocouple through the side opening and fix to the back of the thermostat. Only tighten $\frac{1}{4}$ turn past finger tight.
5. Before proceeding place the tip into a top burner flame and then with the thermocouple still being heated light the oven burned and check that the electro magnet holds in. If this is okay proceed.
6. Remove the lock nut holding the thermocouple head to the back of the oven wall. Push thermocouple back. Cut head off faulty thermocouple to recover the second lock nut.
7. Now feed new thermocouple down to the back of the oven and add the lock nut winging it full back down the thread.
8. Push head through the oven back and fix with lock nut

9. Re assemble the grill reflector and screw cooker back into position.

Adjusting the spark Ignition

1. Check that there is a spark at the electrode. This is done with the gas off. Look in the opening on the burner port ring where the sparker is located. (You may need a mirror). If there is no spark remove the top burner and place a screw driver with an insulated handle near to the electrode tip with the metal shaft touching the hob. The spark should be able to cross over 3mm. If not check the spark gap on the oven and the grill to ensure they are no more than 4mm gap (they can take power from another electrode if they are paired with that sparker. If this is not the case then the insulation on the ignition wire is cut and needs to be replaced or a silicon sleeve placed over the wire will also repair the issue.
2. If there is a spark it should spark vertically. Remove the burner cap to see where the electrode is positioned. If it is left or right of center lift the burner body off and adjust position. If the spark appears weak you can use a washer under the electrode fixing bracket to raise the electrode up 1mm.

Removing Ignition Electrodes

1. Remove the required Hot Plate Burner and remove the fixing screw for the electrode
2. Carefully lift the electrode and hold the wire before disconnecting the wire,
3. Replace with new electrode and assemble in reverse order.

Thermostat Calibration Note this process is not recommended in the field. _Remove grill shield.

1. Adjust by releasing nut holding capillary to thermostat body
2. Rotate the threaded part of capillary. Winding clockwise lowers temperature. Lock in position after each time you adjust.
3. Check the oven temperature on the top shelf.

Cook top turn down adjustment

Remove the knob and adjust with a small blade screw driver by the screw to the left of the shaft. Screwing clockwise reduces the turn down gas rate. Watch flame as you adjust.

Removing Grill Burner (Electric hot plate element model)

1. Remove the hob as per general access
2. Remove fixing screws holding the burner cover.
3. Push the grill burner towards the vent end and lift the other end out of the key hole.

Removing the Oven Burner (Fan Forced and Natural Gas Models)

1. Remove the side racks from the oven
2. Remove the burner cover
3. Wind the nut on the left end of burner clockwise until the burner can be released from the cradle.

Removing the Oven Burner (Standard Models)

1. Disconnect the oven from the gas supply and remove appliance from the cavity.
2. Lay appliance on its back and drill out the 4mm rivets

Replacing Oven Door Seal

1. Remove the oven door
2. Drill out the rivets holding the side trims to the oven
3. With the appliance laying on its back remove old door seal and replace with a new seal ensuring that return edges of the seal clip over the oven wrap and the side trim or grill wrap. The top seal must be located centrally and have a gap at either end of 25-30mm for front flued models or join the side seals for the rear flue models.

Replaceable Parts

The following parts can be replaced after gaining access as per the proceeding instructions. All parts are available through Swift Group. They include Oven Fan. Glass panels, Oven/Grill door Springs, Ignition Module, electrodes, thermocouples and electrical components.

Pressure point

1. Located on the right-hand end of the manifold pipe
Propane 2.75kPa; Natural Gas 1.0 kPa
Adjust pressure with 1 Rapid and two semi rapid burners running.

Data Label

Located on the return edge of lid and /or left-hand side trim above the gas connection point.

Injector Sizes

Rapid	LPG 0.84mm;	NG 1.40mm
Semi Rapid	LPG 0.7mm	NG 1.10mm
Wok	LPG 0.84mm;	NG 1.40mm
Grill	LPG 0.7mm	NG 1.3mm
Oven	LPG 0.7mm	NG 1.1mm

Grill Injector Replacement

Remove the hob from the cooker to gain access, then the injector can be replaced.

Adjustments

1. Thermocouple tip are not adjustable. The oven and grill thermocouple can be moved a small amount by holding the body of the thermocouple not the tip.
2. Electrodes- Pivot the electrode so that it is centrally located in the rectangular box section of the burner. The spark should fire upwards and the gap 2-3 mm
3. Aeration – The burners are designed without aeration adjustment
4. Electric Element will not heat. There is a switch that prevents the element from operating when the lid is down. This can be adjusted as follows
 - First check the GPO power point that the cooker is plugged into. Use another appliance to ensure that it is on.
 - Lift the lid and as the lid reaches the up position you should hear a click. Repeat this a couple of times to be sure that the

switch is not sticking. If it clicks then it is a wiring or element issue.

- If there is no click close the lid and look into the opening behind the lid. On the right hand-side you will see a stainless steel plate about 25mm wide which is sloping downwards away from the back edge of the lid. Below this there is a narrow metal bar (about 5mm wide) coming up from below the 25mm plate and sloping back towards the rear of the cooker. With your left hand, place your second finger behind the narrow bar and gently draw the bar forward until it comes against the back of the hob turn up. Give it a gentle squeeze. Turn the element control on and check that the element is get hot. If not then it is the wiring or the element.

Fault finding

Burner does not hold on when knob is released- check that knob clears front of control panel, burner cap is sitting down correctly

Low heat to all burners- Check the gas pressure, or oil in the lines.

Wiring Scheme is located on the data plate.

When Servicing do not Modify the appliance. Consult with Swift Group for supply of parts and detailed servicing instructions to suit your particular problem.

Total Gas Consumption

501 series- One Rapid, three Semi Rapid, One Grill, One Oven.

Weight 26Kg NG33MJ; LPG36MJ (WOK add 3MJ)

502 series- One Rapid, three Semi Rapid, One Grill, One Oven.

Weight 26Kg NG33MJ; LPG36MJ (WOK add 3MJ)

503 series- One Rapid, three Semi Rapid, One Grill,

Weight 16Kg NG28MJ; LPG31MJ (WOK add 3MJ)

504series- One Rapid, three Semi Rapid,

Weight 9Kg NG24MJ; LPG25MJ (WOK add 3MJ)

505 series- One Rapid, three Semi Rapid,

Weight 9Kg NG24MJ; LPG25MJ (WOK add 3MJ)

506 series- One Rapid, three Semi Rapid,

Weight 9Kg NG24MJ; LPG25MJ (WOK add 3MJ)

507 series- One Rapid, two Semi Rapid,

Weight 8Kg NG20MJ; LPG20MJ (WOK add 3MJ)

508 series- One Rapid, One Semi Rapid,

Weight 8Kg NG15MJ; LPG15MJ (WOK add 3MJ)

509 series- One Rapid, three Semi Rapid, One Grill, One Oven.

Weight 26Kg NG33MJ; LPG36MJ (WOK add 3MJ)

SWIFT 500 SERIES OVEN HINGE REPLACEMENT

Removing cooker

- Disconnect the 240V power lead from the GPO.
- Remove the side fixing screws around the perimeter of the cooker surround.
- Slide the cooker forward to expose the 12V ignition wires on the right-hand side (Red and Black wires. Ensure that the 12V DC is turned off then disconnect the wires.
- Disconnect the gas line from the poppet valve
- Remove cooker from the cavity.
- Place cooker on a work bench.

Removing the door

- Remove the door spring on the damaged hinge side
- Drill out the rivets on top of the oven door then while holding the inner and outer glass lift the handle off the top of the door.
- Slide the glass out.
- From the rear side of the oven front frame drill out the two rivets.
- Remove the hinge arm.
- Rivet the bottom trim to the base of the new arm before fixing hinge arm into position. If you need to replace the bottom trim with the hinge arm in position you can drill out the rivets either

end of the surround base trim and bend the trim down to access the rivets.

- Reposition the new arm and rivet the hinge from the rear.
- Reassemble the door and position the handle over the top of the glass panels .
- Rivet into position.

Removing the cooker lid

- Remove the two screws from the rear left and right of the outer surround.
- Lift lid away.
- Reposition the lid and check that the rear right- hand striker plate is over the switch pin in the rear right hand corner.
- Replace the fixing screws using a Loctite sealant
- Lift the lid to ensure that the striker plate activates the switch pin.

Re connecting the cooker

- Reverse the above procedure.
- Check for gas leaks
- Re position the power lead and check the element operation.
- Check that that all burner operates correctly.

Changing Hob assembly

- Disconnect the power lead from the GPO.
- Remove side fixing screws and side cooker forward to disconnect gas line.
- Disconnect the 12 volt DC wires.
- Remove cooker from cavity and place on a work bench.
- Remove the two Lid fixing screws from either side at the rear of the side surrounds
- Lift lid clear.
- Disconnect oven spark lead and thermocouple from the oven.
- Unclip the oven capillary bulb from right hand side of oven and push through to outside.
- Disconnect the oven supply tube from the thermostat.
- Disconnect the flexy hose from the manifold.
- Drill the side fixing rivets along either side of the hob.
- Lift hob clear

Replacing Hob

- Check the condition of the poppet valve and replace if required.
- Check the three rivets across the top edge of the grill compartment back wall. If broken or worn replace with 4mm steel rivets.

- Place new hob in position.
- Ensure that the oven capillary hangs outside of the oven
- Replace the rivets along either side of the hob.
- Attach the flexy hose to the manifold.
- Replace the old oven supply tube with the new one supplied.
Note rotate the injector 45 degrees to withdraw from hole.
- Leave a hoop turn at the top rear of cooker and cable tie tube to oven back to prevent movement.
- Reconnect the thermocouple and ignition lead and capillary bulb.
- Reposition lid taking care to fit over the rear righthand limit switch. Use sealant on screws when replacing lid screws.
- Test lid to ensure that the micro switch clicks when the lid is fully raised
- Recommend bench leak test.
- Reposition cooker in cavity ensuring that the rear of the cooker sits on base support.
- Pass the power lead out through cavity hole.
- Connect gas line and gas test for leaks.
- Fix cooker into cavity using the side screws.
- Plug the power lead into the GPO.

Fault finding

Burner lights but will not hold on when knob is released.

Always disconnect the 240V power lead from the socket when servicing

1. Customer can check if the shaft is being pushed fully in when lighting by first turning knob to the 200`C position or Hi for gas cooktop burner and then removing the knob. Get Customer to then push in the shaft and light as normal then hold depressed for 10 seconds. If burner stays on then the knob needs packing out.
2. Checking the thermocouple connection directly behind the thermostat shaft.
 - Remove the grill side racks from the grill compartment
 - Remove the two screws holding the plate around the grill burner. Note The for the all gas model the reflector will drop down, for the gas/ electric model you will need to unclip the front edge using a blade screw driver then bend the front edge down approximately 45`degrees.
 - Remove the insulation from behind the gas rail
 - The thermocouple connection is at the rear directly in line with the shaft. Using a 5/16 SAE open end spanner or a small adjustable check the nut is firm. Do not over tighten.
3. If the fault is still there disconnect the thermocouple nut from the rear and connect the new thermocouple. Note it is quicker to fit the thermocouple into the gas valve temporarily and place the tip into a flame to check the electro magnet in the back is working before you go to the trouble of removing the six fixing screws around the side surround and siding the oven forward. If the burner does not hold on when the thermocouple is in the flame

then the electro magnet needs replacing. First turn off the gas supply and disconnect the 240V lead. Disconnect the thermocouple and remove the nut on the rear of the valve. Push the shaft in while holding the rear to catch the electro magnet capsule. Now re assemble in the reverse order.

4. If you need to replace the oven thermocouple

- Remove the fixing nut from the head of the thermocouple and push out the rear of the oven.
- remove the fixing screws holding the oven into the cavity and slide forward about 150mm so that you can withdraw the thermocouple from behind the thermostat
- Lean over the top of the cooker and withdraw the old thermocouple.
- Fit a nut to the head of the new thermocouple as per the one you removed and position the head through the rear of oven. Fit second nut in the oven. The thermocouple can now be fed around the back of the oven and up to the thermostat.
- Connect to the thermostat and re assemble the cooker
- Check for leaks then re commission the cooker

Access to gas controls

The gas rail is accessed through the grill compartment. Open the grill door and remove the shelf the side racks. The side racks are removed by gripping the front of rack and pulling towards the center of the compartment. Remove the two screws that hold the front edge of the grill reflector and then bend the reflector down. Remove the insulation from below the controls.

To replace a thermocouple

Remove the top burner and take off the fixing nut holding the thermocouple head. Using an 8mm spanner loosen the nut holding the thermocouple to the back of the gas valve. Push the head of the thermocouple down through the hob and withdraw. Replace with the new thermocouple. When tightening the thermocouple nut tighten by hand then use the spanner to tighten $\frac{1}{4}$ turn past finger tight.

SWIFT 500 SERIES OVEN HINGE REPLACEMENT

Procedure

Removing cooker

- Disconnect the 240V power lead from the GPO.
- Remove the side fixing screws around the perimeter of the cooker surround.
- Slide the cooker forward to expose the 12V ignition wires on the right-hand side (Red and Black wires. Ensure that the 12V DC is turned off then disconnect the wires.
- Disconnect the gas line from the poppet valve
- Remove cooker from the cavity.
- Place cooker on a work bench.

Removing the door

- Remove the door spring on the damaged hinge side
- Drill out the rivets on top of the oven door then while holding the inner and outer glass lift the handle off the top of the door.
- Slide the glass out.
- From the rear side of the oven front frame drill out the two rivets.
- Remove the hinge arm.
- Reposition the new arm and rivet the hinge from the rear.
- Reassemble the door and position the handle over the top .
- Rivet into position.

Replacing the cooker lid

- Remove the two screws from the rear left and right of the outer surround.
- Lift lid away.
- Reposition the lid and check that the rear right- hand striker plate is over the switch pin in the rear right-hand corner.
- Replace the fixing screws using a Loctite sealant
- Lift the lid to ensure that the striker plate activates the switch pin.

Reconnecting the cooker

- Reverse the above procedure.

- Check for gas leaks
- Re position the power lead and check the element operation.
- Check that that all burner operates correctly.

Changing Hob assembly

- Disconnect the power lead from the GPO.
- Disconnect the 12 volt DC wires.
- Remove side fixing screws and side cooker forward to disconnect gas line.
- Remove cooker from cavity and place on a work bench.
- Remove the two Lid fixing screws from either side at the rear of the side surrounds and lift lid clear
- Disconnect oven spark lead and thermocouple from the oven.
- Unclip the oven capillary bulb from right hand side of oven and push through to outside.
- Disconnect the oven supply tube from the thermostat.
- Disconnect the tube between poppet valve at the manifold end.
Note: For cookers older than five years or vehicles that have been used for off road replace tube between poppet valve and manifold.
- Drill the side fixing rivets along either side of the hob.
- Lift hob clear

Replacing Hob

- Check the condition of the poppet valve and replace if required.
- Check the three rivets across the top edge of the grill compartment back wall. If broken or worn replace with 4mm steel rivets. Earlier models only had one rivet, fit three to these models
- Place new hob in position.
- Ensure that the oven capillary hangs outside of the oven
- Replace the rivets along either side of the hob.
- Attach the flexy hose to the manifold.
- Replace the old oven supply tube with the new one supplied. Note rotate the injector 45 degrees to withdraw from hole.
- Leave a hoop turn at the top rear of cooker and cable tie tube to oven back to prevent movement.
- Reconnect the thermocouple and ignition lead and capillary bulb.
- Reposition lid taking care to fit over the rear righthand limit switch. Use Loctite on screws when replacing lid screws.
- Test lid to ensure that the micro switch clicks when the lid is fully raised
- Recommend bench leak test.
- Check the condition of the cavity to ensure that it is ridged and sound. If screws, rivets or metal parts have broken previously in

the van inspect the top edge support where the cooker screws into. Ensure that the base of the oven is supported.

If the caravan is not fitted with `Shock Absorbers` advise the customer that damage will occur if they do not take care. They MUST take great care when travelling over rough or corrugated areas as follows:

Travel slowly on rough terrain. What you feel in the car is not what is going on in the caravan.

Reduce tire pressures by at least half of normal road running pressure.

Remove the level ride bars between the car and the A frame.

Over loaded vans are dangerous. Check your ball weight before travelling. Checking them at the `Pearly gates` is too late.

Always check the fixing screws holding the appliances into the cavity have not broken or come out. If they do there is a problem that MUST be addressed.

- Reposition cooker in cavity ensuring that the rear of the cooker is sitting on base support.
- Pass the power lead out through cavity hole.
- Connect gas line and gas test for leaks.
- Fix cooker into cavity using the side screws.
- Plug the power lead into the GPO.

