

Heater Assembly Upgrade Kit

Part Number: 700899X

Description: Heater assembly upgrade kit

Applications: TR2-3A

Kit Contents: 1 x heater unit, 1 x mounting cradle, 1 x 2 speed switch, 2 x water hoses, 1 x wiring loom

General Information

Please read all instructions and familiarise yourself with the product before commencing work. This may prevent errors during fitting, especially if referencing the appropriate original workshop manuals and/or parts books. Moss Europe can supply these manuals in printed or DVD-Rom format, please call your nearest branch for more details. You may wish to remove seats and footwell carpets to ensure they do not get damaged during the work.

The fitment of this product should only be undertaken by persons who feel confident that they have the ability to fit the product. If you are unsure please either contact your nearest Moss branch or a specialist technician.



Instructions

1. Disconnect the battery.
2. Drain the water system. If a heater tap is fitted turn this off. Then clamp the return hose at the LH bulkhead joiner, engine bay side.
3. Remove existing heater, if fitted.
4. Remove the glove box, tachometer and speedometer for access.
5. Inspect the engine bay components and replace as necessary. If heater has previously not been fitted then the following components will be required:

Item	Part No.	Description	Qty.
1	105176	Hoses, engine to bulkhead	2
2	CS4012	Clip, for hoses, wire type	4
	GHC11020	Clip, for hoses, band type	4
3	601950SS	Bulkhead joiner	2
4	601951	Gasket, for bulkhead	2
5	100399	Heater tap	1
6	107994	Extension pipe, heater tap	1
7	201947SS	Pipe, to water pump	1
8	101343	Adaptor, to water pump	1
9	101302	Nut, for pipe	1
10	TL11	Olive, for pipe	1
In the cockpit the following will be required:			
11	700849	Nozzle demister	2



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6. The heater can be fitted with the water inlet and outlet pipes on the left or the right. In a TR2-3B there is generally no advantage in one orientation or the other, as one pipe needs to go to the left and one to the right. However, if the pipes are on the same side as the glove box, they may be too close to the glove box. It is however important to ensure that the windscreen demist outlets are pointing forward to the bulkhead. Should you wish the reverse the orientation of the lower air box with the swivel nozzles fitted, this can be achieved quite easily. There are 4 black plastic rivets holding the air box to the heater main body. These can be removed with thumb and fingernails. With the rivets removed the air box can be slid off and reversed. When reinstalling the plastic rivets, separate the inner and outer parts, insert the outer with the hole through the middle first followed by the inner part with the domed head.
7. Secure the self-adhesive foam supplied to the inside face of the main support bracket on the 3 major sides only - not to the two small flanges. Apply self-adhesive foam to one face of the flat strap, slip the main frame over the top part of the heater body and push down to meet the upper edge of the air box.
8. Secure the support bracket to the heater casing by riveting in 4 places. The support bracket sits on the main case just above the outlet air box. Note that the two support brackets welded to the main frame have two mountings holes in each. These holes need to be positioned towards the demist outlets. **When drilling the main casing riveting, be very careful to ensure the drill bit does not plunge too far into the casing and damage the heater pipes. The frame is pre-drilled in such a position so as to minimise the danger of damage to the internal heater pipes, in other words the pipes are well inboard of the drilling position. In any event it is important to exercise extreme caution when drilling into plastic casing. To help restrict how far the drill will penetrate, wrap tape around the drill bit leaving only 10mm exposed at the tip. This will restrict how far the drill bit will plunge when the drill bit breaks through.** Note that two of the rivets attach the strap to the main support bracket at the same time attaching to the main heater casing. The strap should be slipped inside the end flanges of the main support brackets.
9. Offer up the heater into position under the dash panel with the demist duct outlets pointing forward (i.e. towards the battery box) with 8 plain washers, 4 off 2BA screws and 4 nyloc nuts, secure the heater in place onto the dash support strips. In some cases the dash panel support strips may be too close together to allow the heater to sit up high enough, loosen the 8 securing self tapping screws, 4 at the dash panel and 4 at the battery box, push the straps apart and try again. Some choke cables have a long body that might get in the way. If necessary, remove the choke cable to assist fitment and replace it when the heater installation is complete. It may be necessary to swap the choke cable to another dash position to avoid a sharp bend in the cable run.
10. The dash panel to battery box straps have a range of slots and holes, measuring from the battery box, position the heater support bracket front edge 90mm back, this will allow the holes in the heater bracket to line up with one hole at 108mm and one slot at 145mm.
11. In extreme cases it may be necessary to remove some metal from the inside edge of both dash panel to battery box straps. 4mm off each should be sufficient. Remove both straps and on the bench line up the straps on the heater support bracket using the dimensions above, mark where material needs to be removed using tin snips and remove material where necessary.
12. Fit the demist duct tubes in place. Cut the RH duct 630mm long: cut the passenger duct 530mm long. Note that the drivers duct passes through the steering column support bracket. Be sure to check these dimensions are correct for your car before cutting.
13. Prepare the water hoses for fitment between the bulkhead connection 12.7mm (1/2") tubes and the heater inlet/outlets, which are 16mm (5/8"). One hose fitted as supplied 970mm long, the other hose is shortened to 690mm. before fitting, inspect the hose to be cut carefully and identify the fatter end destined for the heater connection. DO NOT cut this end, remove the surplus material from the 12.7mm (1/2") end. Check this dimension suits your car before cutting the hose.
14. Select a suitable route for the hoses from the heater to bulkhead connectors. Fit the hose clips loosely to the holes some way back from the eventual position. Trial fit the hoses. It is not necessary to push them fully home onto the heater and the bulkhead connections, just enough to verify the correctness of length and route will suffice. The connections at the heater are particularly tight and as the tubes are unsupported internally, take great care not to push the tubes down into the heater body.



15. Find a suitable position for the two-speed switch on the dashboard and drill a 10mm hole. File this hole out to a 'D' shape observing orientation to ensure the knob sits with the 'O' vertically upwards in the off position. Wire the heater into the vehicle electrical system ensuring the source is ignition controlled, fused and capable of a 20amp continuous current draw.
16. The heater is terminated in a 4-way socket (3 positions used) a 500mm loom is provided with a suitable socket fitted. Ensure the wire colours match when the plug and socket are mated. Take a green 12-volt positive feed wire (14 strand) to terminal 'A' of the switch. Take the orange feed wire from the heater to terminal 'B' of the switch. Take the red feed wire from the heater to terminal 'C' of the switch. Take the black wire (14 strand) from the heater to a good earth connection using the ring tag provided.
17. Refit all removed parts. Reconnect the battery and test the electrical system.
18. Refill with water/antifreeze mix, start the engine and warm up to test full operation.
19. Operation: The vents on the bottom of the air box can be swivelled through 360 degrees. For maximum windscreen defrost/demist, close both swivel vents.

