

REPLACEMENT EBM VENTER MOTOR FOR UPA, UDSA, UDSAV, UDSB-D, SCA & ST-2 HEATERS.



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Warnings

All external wiring MUST comply with the current IEE wiring regulations.

General information.

Replacement Venter motors for UDSA*; UD-SAV*; UDSB-D*, ST series2 and UPA heaters have changed manufacturer.

The EMB motor has undergone life endurance test and proved that the same performances as existing motors and is completely compatible.

Motor wiring has altered from the current three



fig.1 - Original WSC Venter Motor

wires to four.

This technical bulletin describes in detail the procedure required to complete the replacement of the Venter and wiring changes.

The information contained in this technical bulletin is designed to aid a qualified or competent service technician.

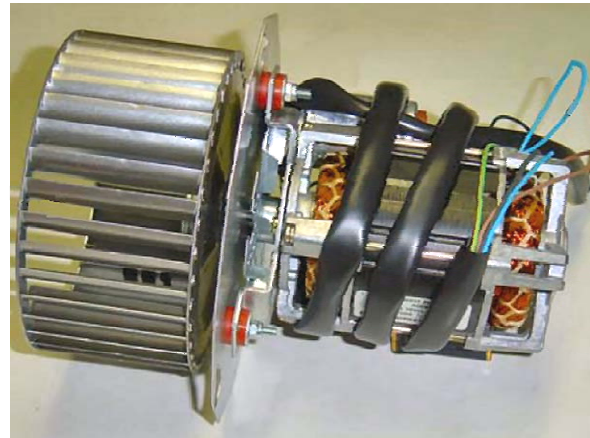


fig.2 - EMB Venter Motor (with impeller shown)

Tools required.

The following tools and equipment will be required to complete this task:

1. New Venter motor Ambirad
2. Flat head screwdriver
3. Electrical screwdriver
4. 10mm Open Ended Spanner
5. 3mm allen key
6. Crimping tool & Butt Crimps
7. Multi-meter.

Step by step instructions.

ISOLATE ALL ELECTRICAL SUPPLY TO THE HEATER & CONTROLLER BEFORE PROCEEDING.

1. Open heater control section side panel by turning quarter turn screw anticlockwise. Allow door to hang.
2. Disconnect the three venter motor wires at the control relay and ground screw (located on the control panel).
3. Using a 20mm open ended spanner, loosen the three retaining screws holding the venter assembly plate to the heater wall.
4. Rotate the venter assembly anticlockwise and withdraw.
5. Holding the motor and using a 3mm allen key, carefully unscrew the allen screw from the impeller boss.
6. Again holding the motor, remove the screws that attach the motor plate to the venter housing.
7. Remove the motor and wheel assembly from the heater.
8. Locate the relevant replacement venter motor as fig 3, 4 and 5.
9. Reattach the motor plate to the venter housing using the screws from step 5.
10. Using the 3mm allen key, reattach the impeller to the motor shaft, making sure the impeller is in the same position as the original and that the screw is tight.
11. Align the new assembly to its position at the heater wall and locate on the securing pins.
12. Rotate the venter assembly clockwise to its stop.
13. Using the 20mm open ended spanner, tighten the three retaining screws.
14. Note heater type and reconnect the motor wires using the following steps.

PROCEDURE FOR THE REWIRING OF THE UDSA/UDSB-D 025 - 030 & UPA 030 VENTERS

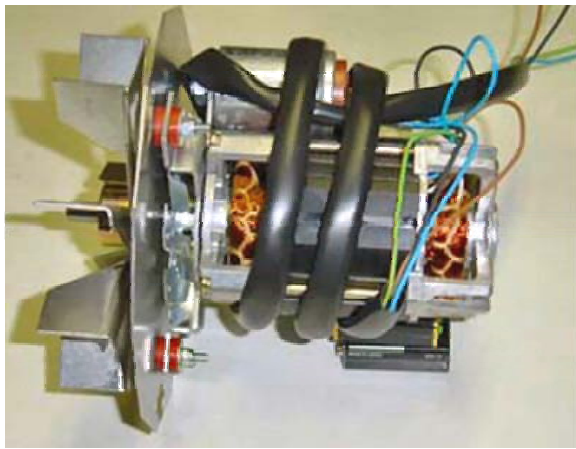
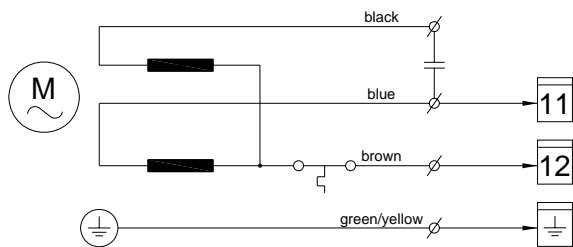


fig.3 - Venter motor assembly for UDSA /UDSB-D 025 - 030 and UPA 030.

15. Using a crimper, butt splice the **BLACK** wire end to insulate.
16. Using an electrical screwdriver, connect the **BLUE** wire to heater terminal **11**.
17. Using an electrical screwdriver, connect the **BROWN** wire to heater terminal **12**.
18. Using an electrical screwdriver, connect the **GREEN / YELLOW** wire to earth terminal.



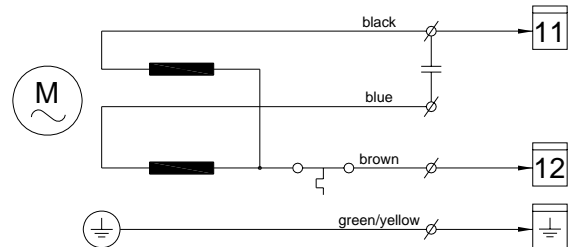
19. Restore power to the heater and turn on the gas.
20. Light, following the instructions on the lighting instruction plate.
21. Check for proper operation.
22. Replace the access door.

PROCEDURE FOR THE REWIRING OF THE UDSA 032 VENTER ONLY.



fig.4 - Venter motor assembly for UDSA 032 only

15. Using a crimper, butt splice the **BLUE** wire end to insulate.
16. Using an electrical screwdriver, connect the **BLACK** wire to heater terminal **11**.
17. Using an electrical screwdriver, connect the **BROWN** wire to heater terminal **12**.
18. Using an electrical screwdriver, connect the **GREEN / YELLOW** wire to earth terminal.



19. Restore power to the heater and turn on the gas.
20. Light, following the instructions on the lighting instruction plate.
21. Check for proper operation.
22. Replace the access door.

PROCEDURE FOR THE REWIRING OF THE UDSA/UDSB-D32 - 100 & UPA40 - 90 VENTERS

PROCEDURE FOR THE REWIRING OF THE SCA & ST-2 VENTERS.

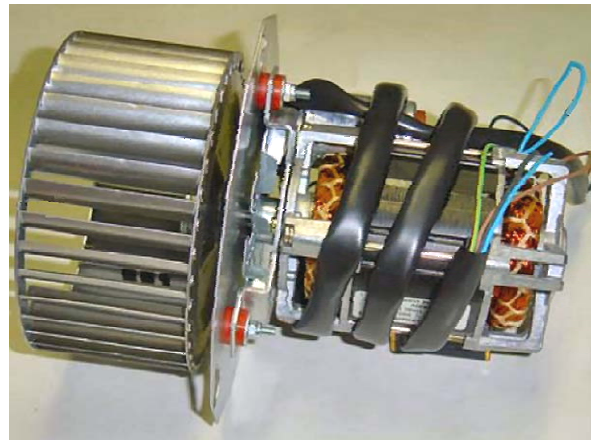
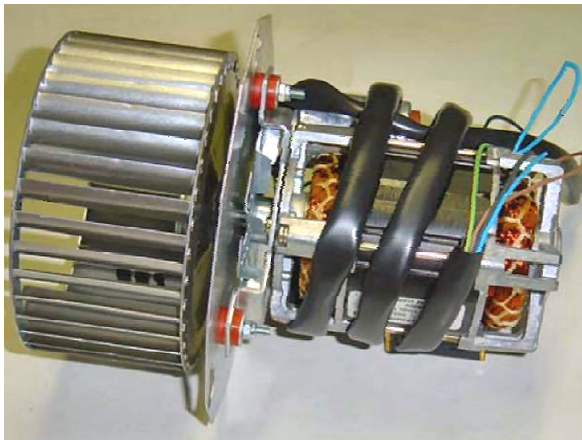
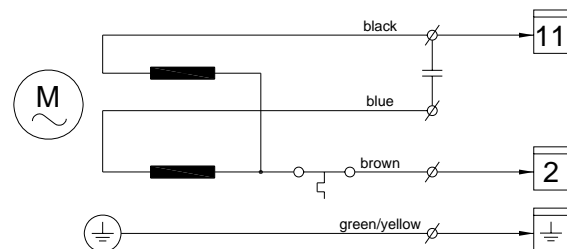
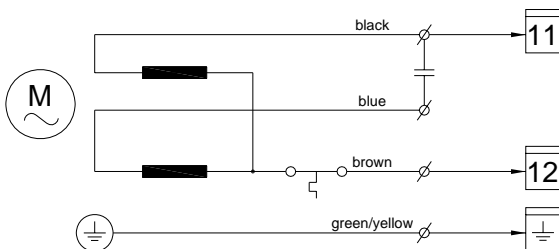


fig.5 - Venter motor assembly for UDSA / UDSB-D 035 - 100 and UPA 40 - 90.

fig.6 - Venter motor assembly for SCA 75 - 100 and ST-2 100 - 400.

15. Using a crimper, butt splice the **BLUE** wire end to insulate.
16. Using an electrical screwdriver, connect the **BLACK** wire to heater terminal **11**.
17. Using an electrical screwdriver, connect the **BROWN** wire to heater terminal **12**.
18. Using an electrical screwdriver, connect the **GREEN / YELLOW** wire to earth terminal.

15. Using a crimper, butt splice the **BLUE** wire end to insulate.
16. Using an electrical screwdriver, connect the **BLACK** wire to heater terminal **11**.
17. Using an electrical screwdriver, connect the **BROWN** wire to heater terminal **2**.
18. Using an electrical screwdriver, connect the **GREEN / YELLOW** wire to earth terminal.



19. Restore power to the heater and turn on the gas.
20. Light, following the instructions on the lighting instruction plate.
21. Check for proper operation.
22. Replace the access door.

19. Restore power to the heater and turn on the gas.
20. Light, following the instructions on the lighting instruction plate.
21. Check for proper operation.
22. Replace the access door.



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