



Service Manual for 2903-28 / 2904-28

How to Remove the Cover



Cover Specification

Cast Iron – White Porcelain

- 2903-28, Sensor Activation
(replacement P/N: P15-420)
- 2904-28, Push Button Activation
(replacement P/N: P15-421)



Reminder!

Disconnect power to the unit before
removing the cover

Removing the Cover:



Step 1: Unscrew the two lock screws with the security wrench provided.

(Part # P15-419)

Step 2: Remove the cover taking care to avoid damaging the cover or internal components.



Caution: For Automatic Dryers

Be sure to disconnect the sensor cord connecting the cover to the base before removing!



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How to Remove the Heating Element



Heating Element Specification

- Undulated heating element
- Material: Winding in NICROM; Body in MICA
- Automatic resetting circuit breaker protects against overheating.

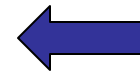
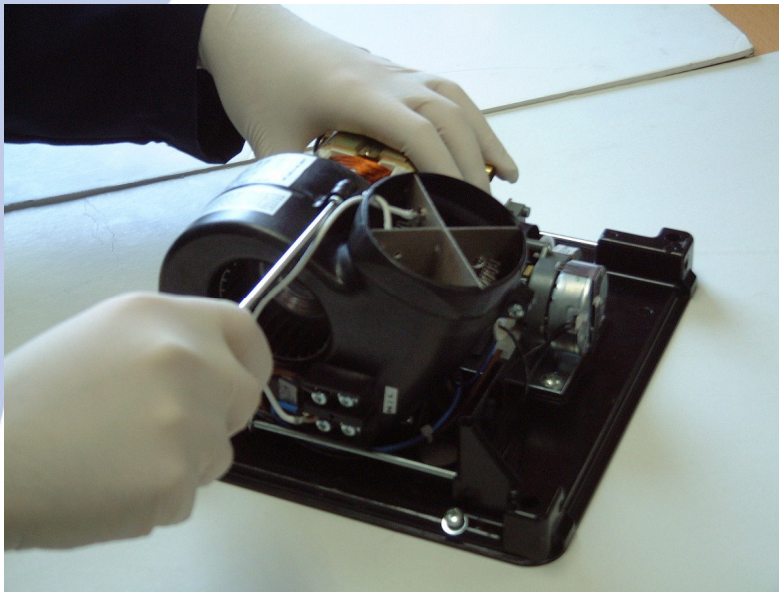
Replacement Part Numbers: P15-424 for UL Models
P15-425 for CE Models



Reminder!

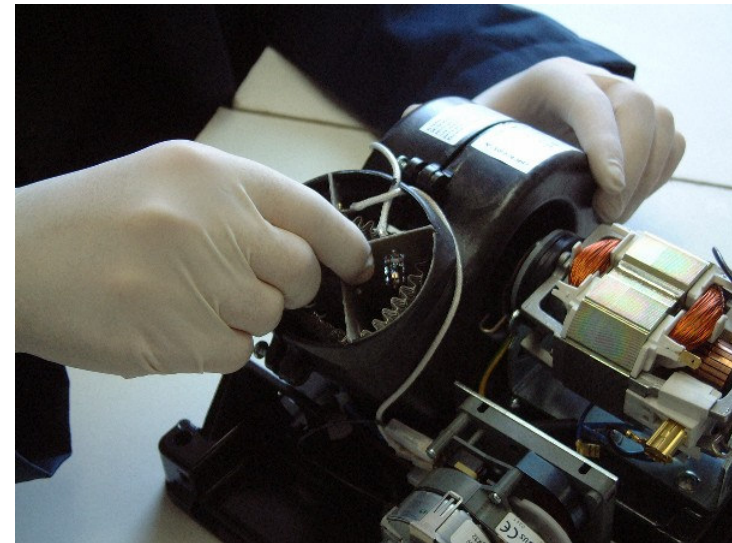
Disconnect power to the unit before
removing the cover

Removing the Heating Element:



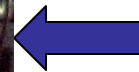
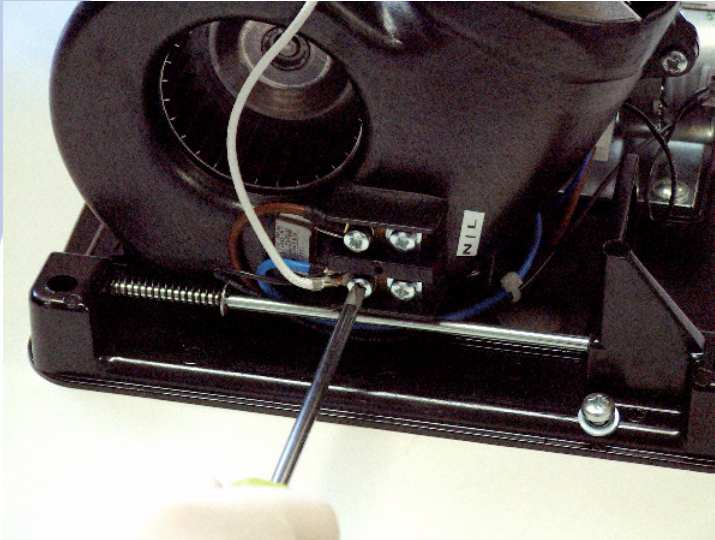
Step 1: Unscrew the three screws which connect the two halves of the scroll.

Step 2: Separate both parts of the scroll so that you can work inside.



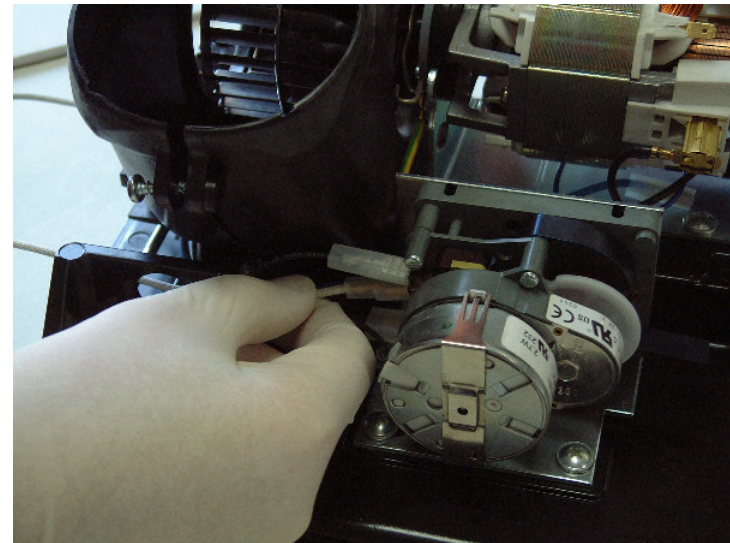
A: Push-button version

One cable of the heating element is connected to the electrical connection, and the other one to the timer.



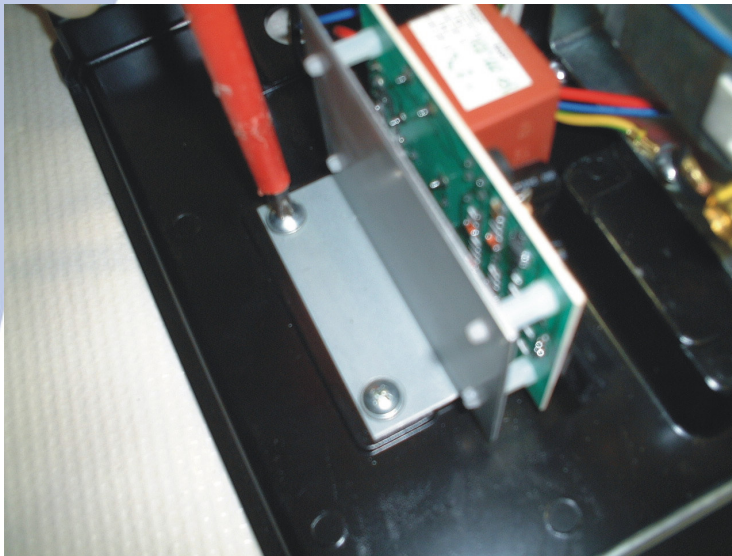
Step 1: Disconnect the cable from the electrical connection.

Step 2: Disconnect the cable from the timer.

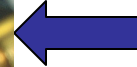


B: Automatic version

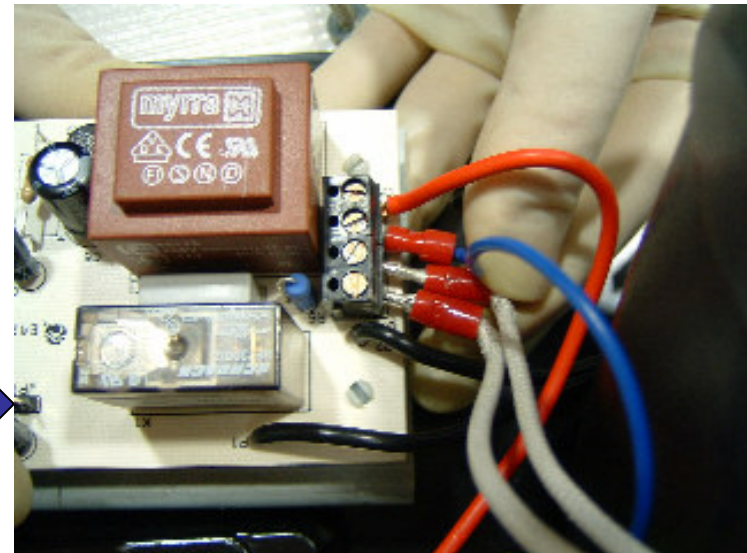
Both cables of the heating element are connected to the circuit board.



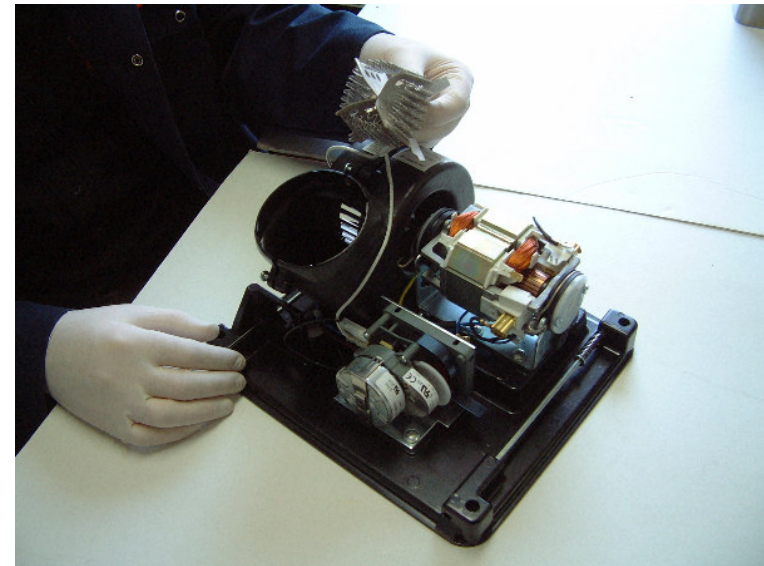
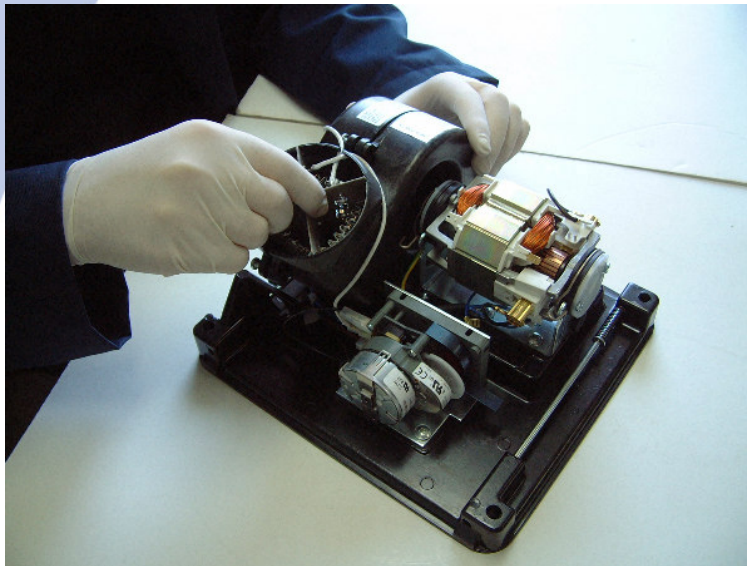
Step 1: Remove the circuit board from the base plate.



Step 2: Disconnect the two white cables from the terminal block.



Both versions



Step 3: Remove the heating element.

To replace the heating element, take the new one and follow the above steps in reverse.



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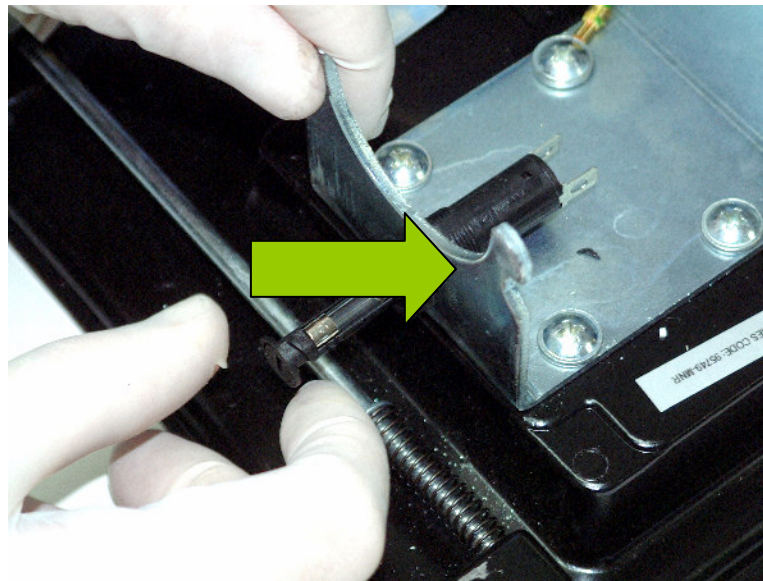
How to Remove the Motor Fuse



Motor Fuse Specification

The fuse will blow to protect the motor in case of over-voltage or short-circuit.

The fuse is located on the motor support.



Replacement
Part Number:

P15-432 for UL
only.

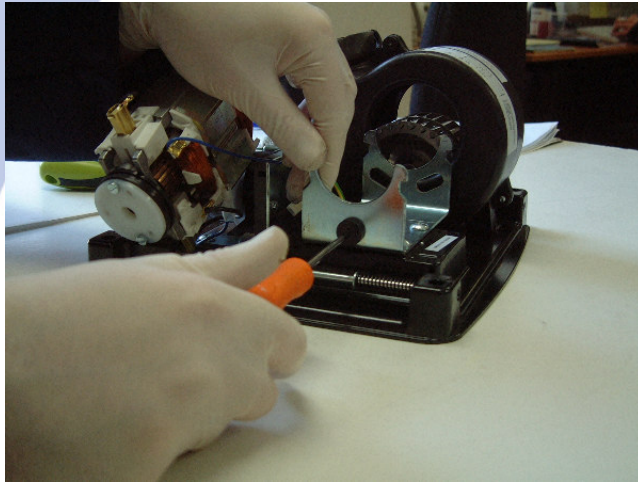
CE models do
not require a
fuse.



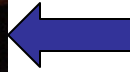
Reminder!

Disconnect power to the unit before
removing the cover

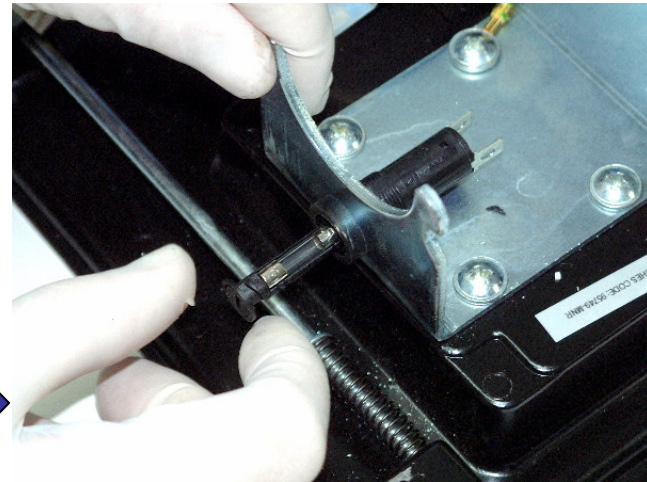
Removing the Motor Fuse:



Step 1: Loosen the fuse by turning the screw counter clockwise.



Step 2: Remove the fuse from it's housing.



To replace the fuse, take the new one and follow the above steps in reverse.

- ! *There is no need to remove the motor in order to change the fuse. (The photos show no motor, but for demonstration purposes only).*



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How to Remove the Motor





Motor Specification

High-Speed Brush Motor (5,500 rpm)

- Class B rating
- Self-lubricating bearings and long brush life
- Insulated by resilient mounting to eliminate noise and vibrations
- Protected by a 2 amp fuse

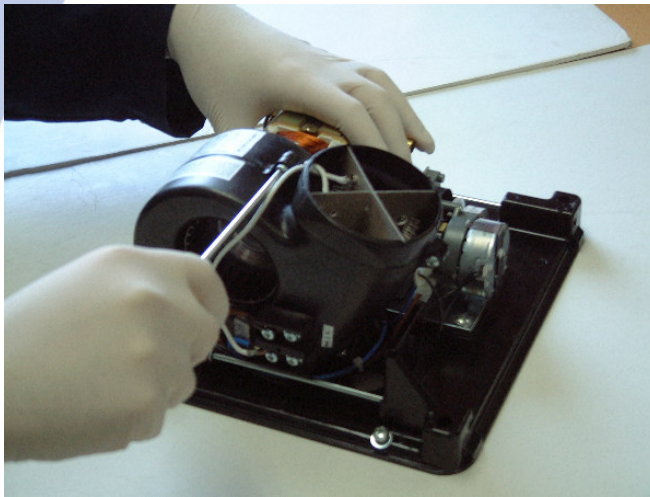
Replacement Part Numbers: P15-422 for UL models
P15-423 for CE models



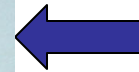
Reminder!

Disconnect power to the unit before
removing the cover

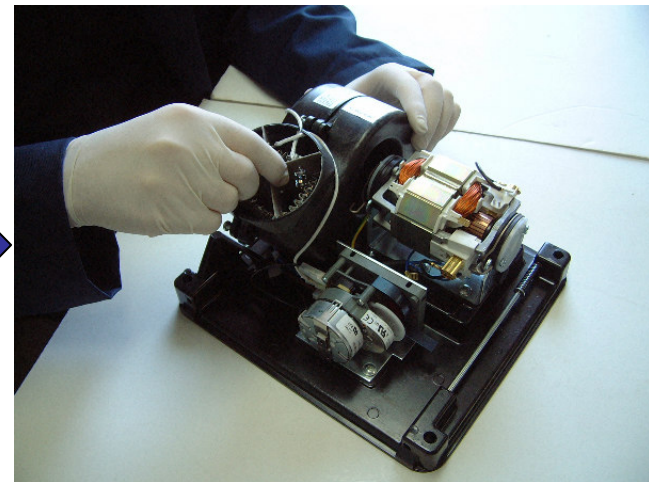
Removing the Motor:



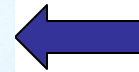
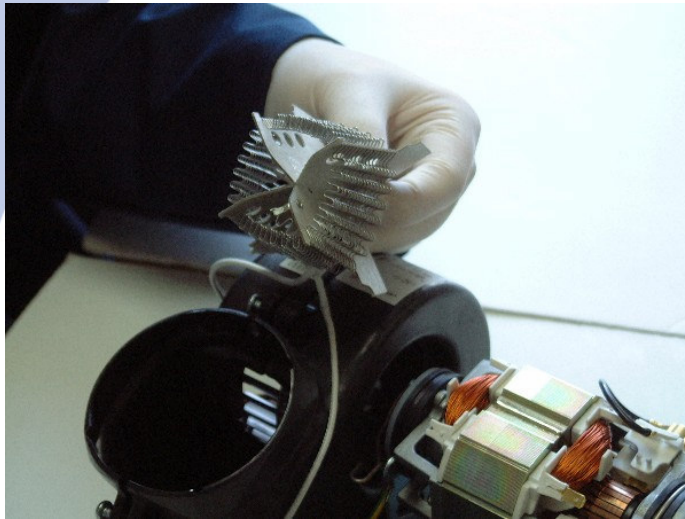
Step 1: Unscrew the three screws which connect the two halves of the scroll.



Step 2: Separate both parts of the scroll so that you can work inside.

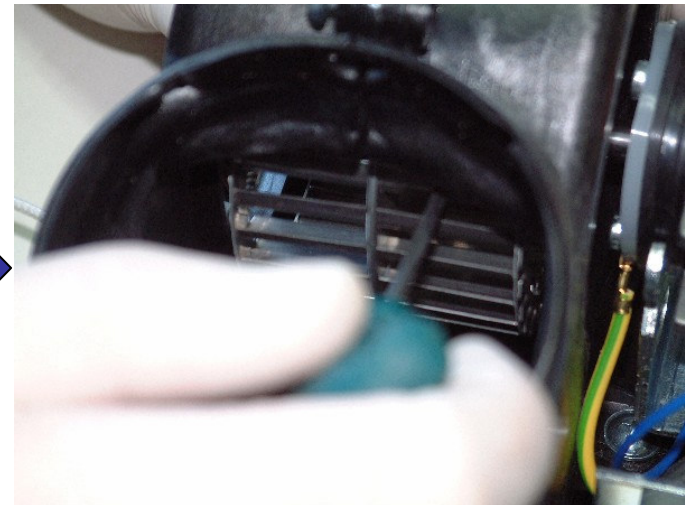


Removing the Motor Continued:

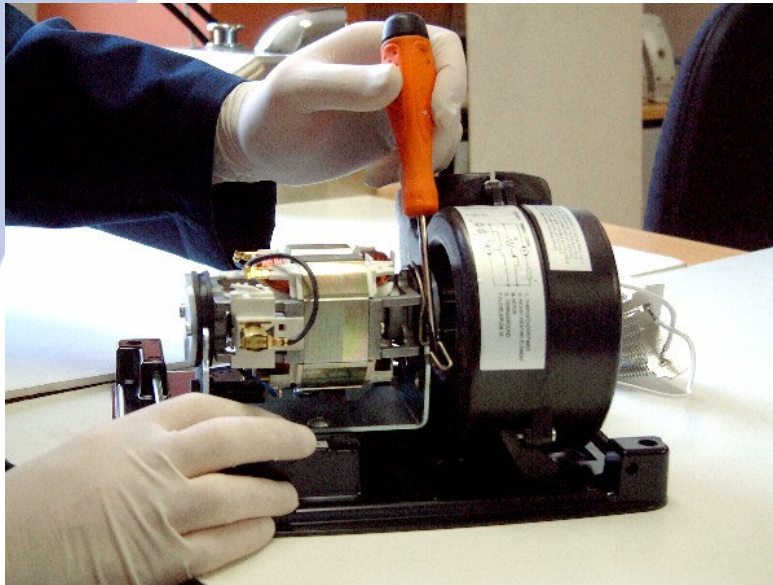


Step 3: Carefully remove the heating element.

Step 4: Unscrew the fan wheel by inserting a number 4 Allen wrench and removing it. You can reach the screw through the hole in one of the fan blades.

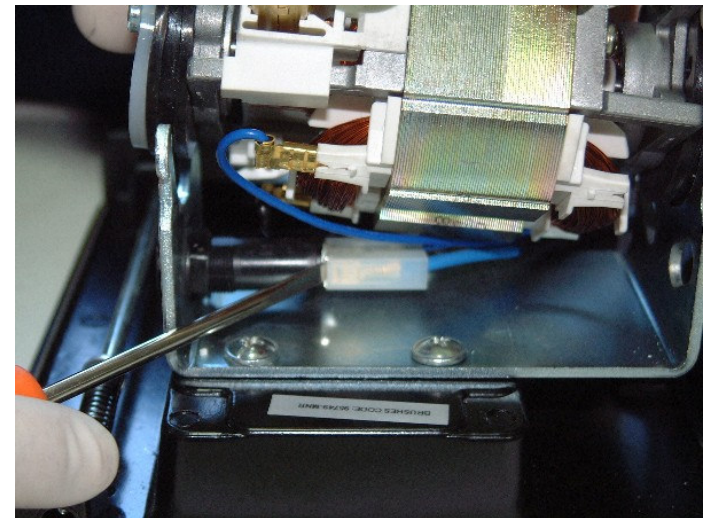


Removing the Motor Continued:

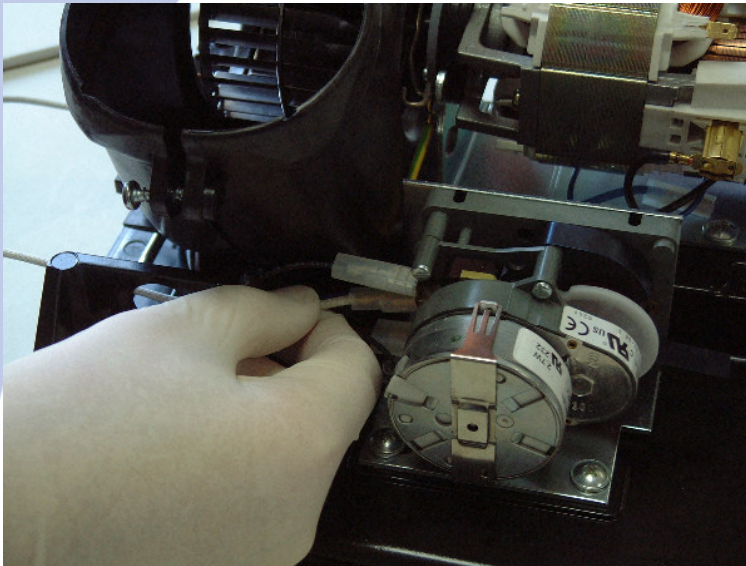


← Step 5: Remove the springs which are binding the motor.

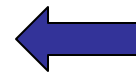
Step 6: Remove the cable to the fuse.




Removing the Motor Continued:

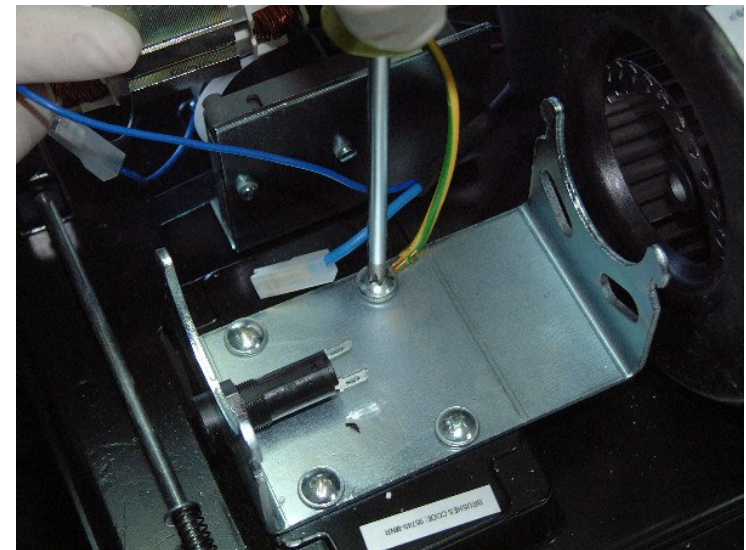


Step 7: Disconnect the cable from the



- Circuit board (automatic version)
- Timer (push button version)

Step 8: Remove the motor, being careful to remove the ground connection. 
(REMEMBER THIS DRYER IS A CLASS I DEVICE)



To replace the motor, take the new one and follow the previous steps in reverse.



Service Manual for 2903-28 / 2904-28

How to Remove the Push-Button Timer



Push-button Timer Specification

- Electro-mechanical timer
- 34 second timer
- The dryer turns off automatically after use.

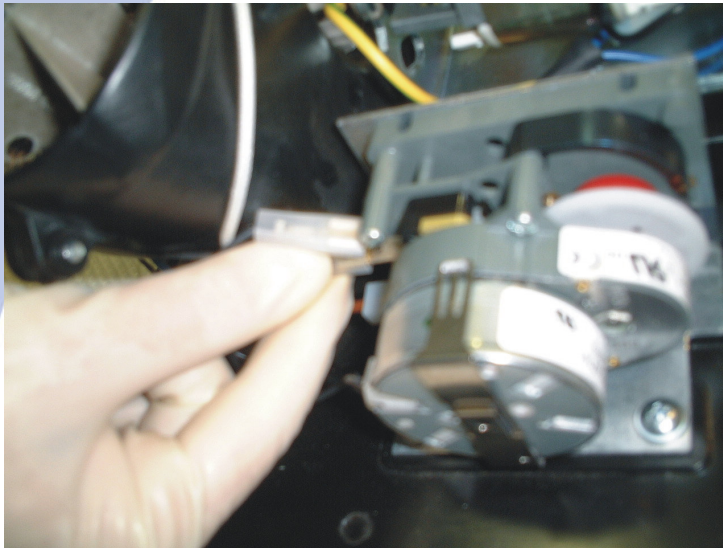
Replacement Part Numbers: P15-426 for UL models
P15-427 for CE models



Reminder!

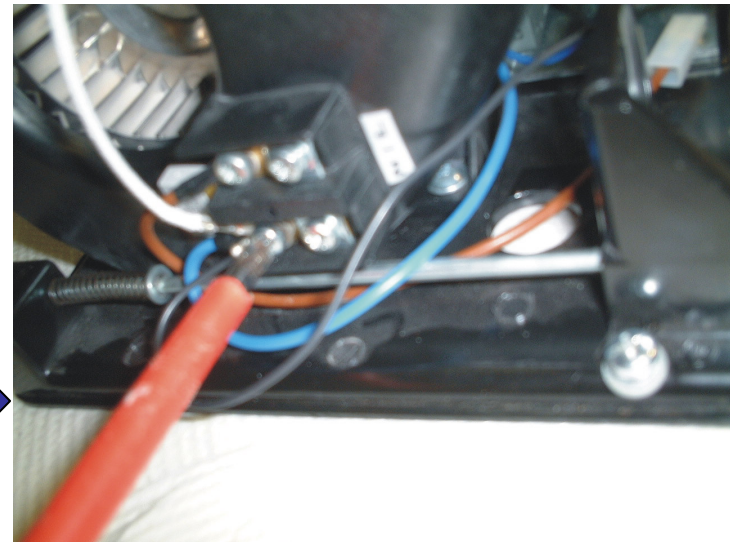
Disconnect power to the unit before
removing the cover

Removing the Timer:

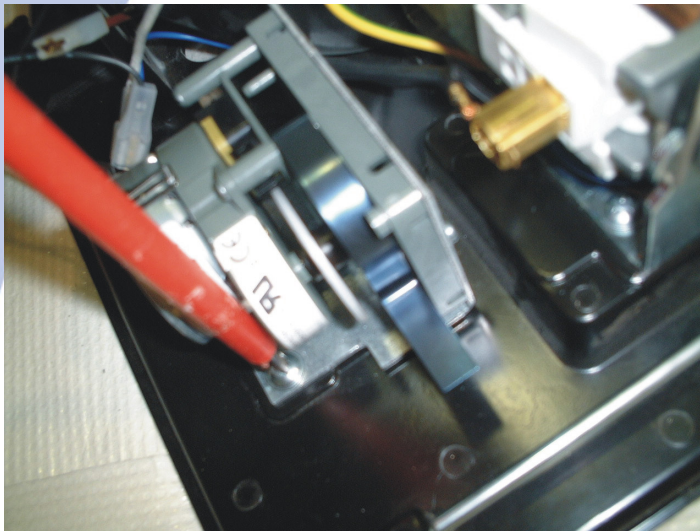


Step 1: Remove the cable connectors to the motor and heating element.

Step 2: Disconnect the two cables from the timer to the terminal block.

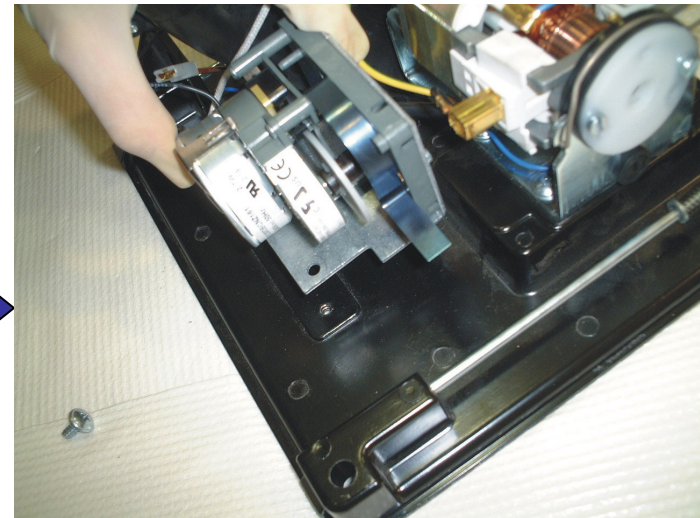


Removing the Timer Continued:



Step 3: Loosen the screws which are holding the timer to the base.

Step 4: Remove the timer.



To replace the timer, take the new one and follow the above steps in reverse.



Service Manual for 2903-28 / 2904-28

How to Remove the Sensor

How to Remove the Sensor Cable

How to Adjust the Detection Distance



Sensor Specification

- Infra-red sensor
- Vandal resistant operating system will cause this unit to automatically shut off if sensor is completely blocked.
- Adjustable Detection Range: 2-6 inches (5-15 cm).

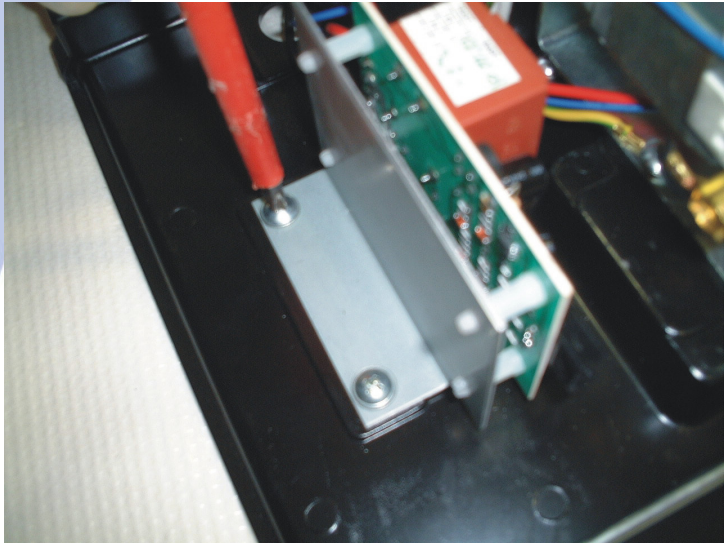
Replacement Part Numbers: P15-438 for UL models
P15-439 for CE models



Reminder!

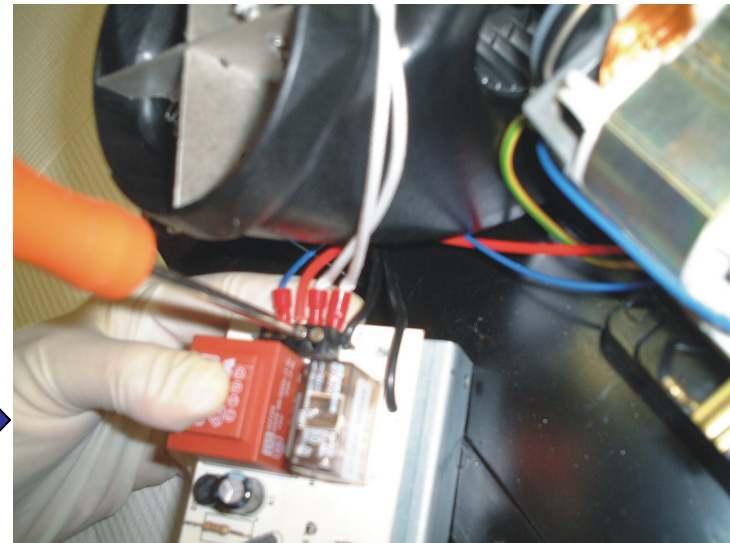
Disconnect power to the unit before
removing the cover

Removing the Circuit Board:



Step 1: Remove the circuit board from the base plate.

Step 2: Disconnect the cables coming from the heating element and motor from the circuit board.



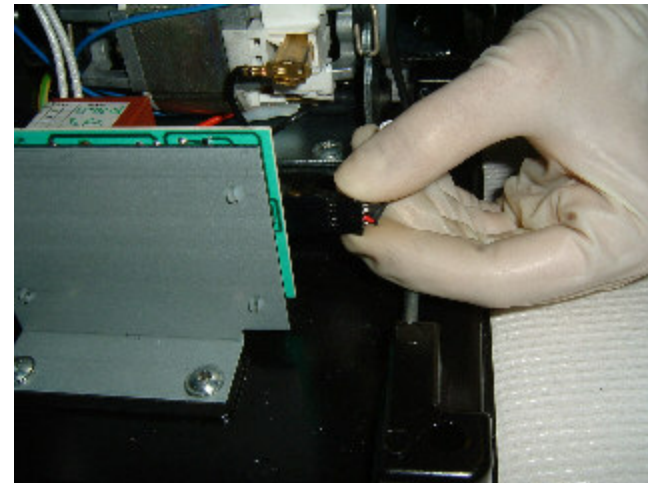
To replace the circuit board, take the new one and follow the above steps in reverse.

Removing the Sensor Cable



Step 1: Very carefully remove the cover and take out the LED's from their place in the cover.

Step 2: Disconnect the cables from the circuit board.

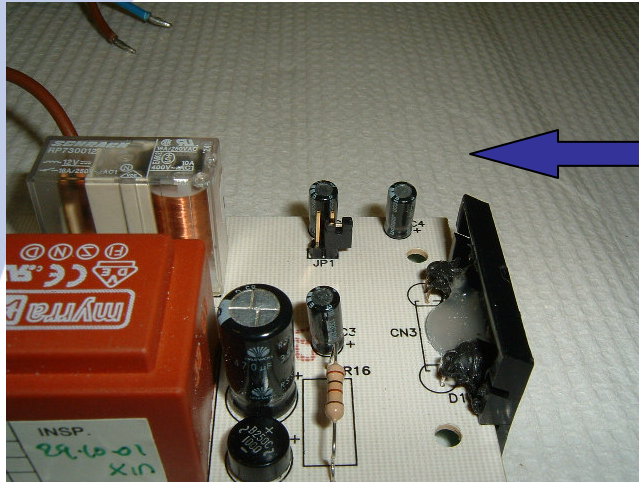


To replace the sensor cable, take the new one and follow the above steps in reverse. Do not forget to affix the LED's with a few drops of silicon.

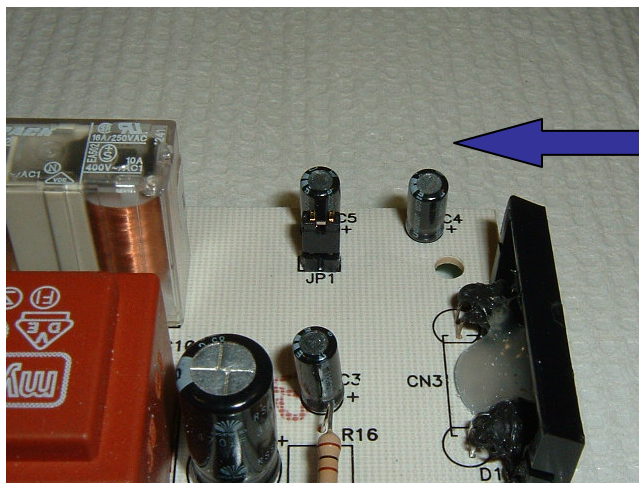
! Take care:

- Never to tighten the wire
- Not to force the connector's connection
- Not to pull the sensor's wire between the base and the cover.

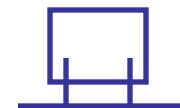
To adjust the detection distance: Use the JUMPER



*A: High setting
Detection distance 8-10 inches*



*B: Low setting
Detection distance 4-6 inches*



***The hand dryers are supplied with the jumper on **Low Setting**.



Service Manual for 2903-28 / 2904-28

How to Replace the Motor Brushes

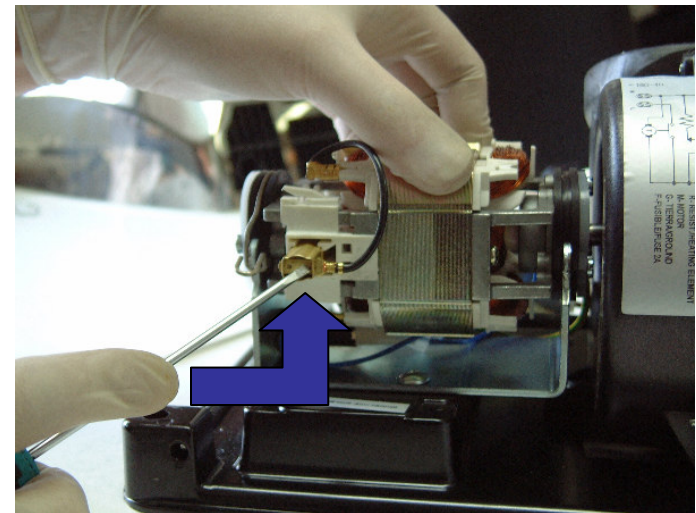


Motor Brushes Specification

The brushes have a theoretical life of 3000 hours. They are installed on the side of the motor.

Brushes must be changed if they are shorter than 0.2 inches

Replacement Part Number: P15-430

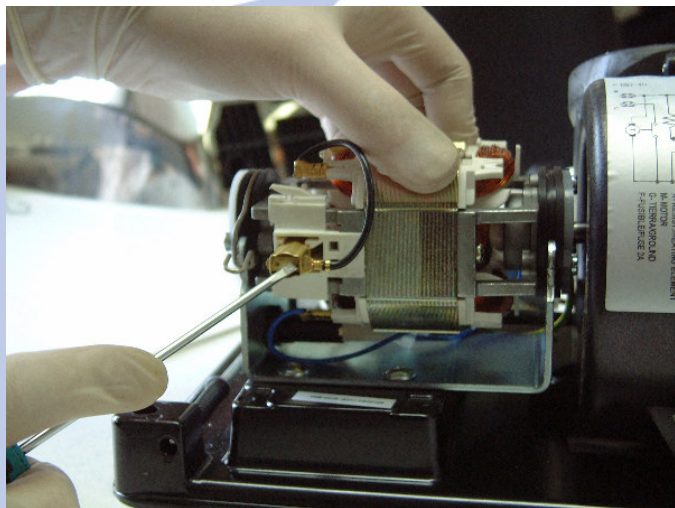




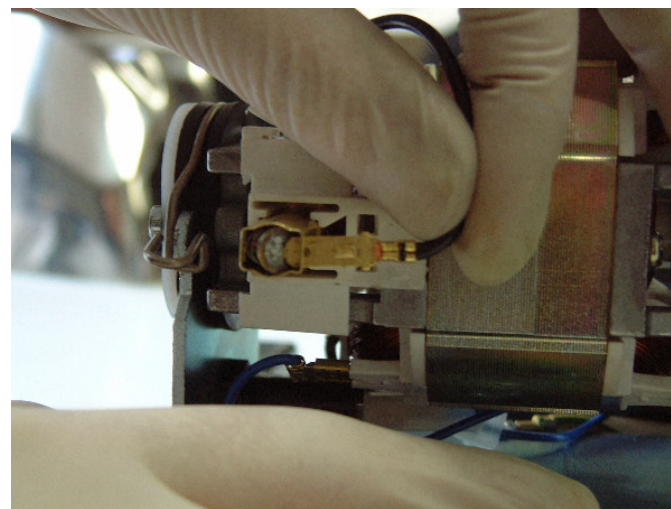
Reminder!

Disconnect power to the unit before
removing the cover

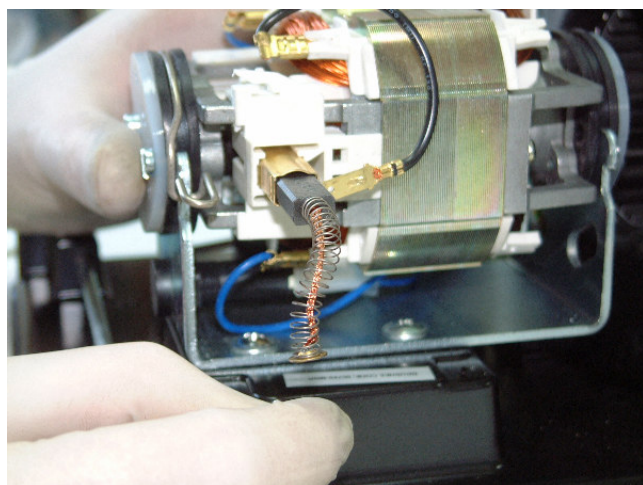
Replacing the Motor Brushes:



Step 1: Press the clip which is covering the brushes



Step 2: Remove the clip to the side until you can see the brushes inside.



Step 3: Remove the brushes

To replace the brushes, take the new one and follow the above steps in reverse.