

Technical Data Sheet, GB46, 220-240V

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Trouble Shooting Guide

- **Symptom:** During a normal cycle the machine has stopped. RED LED is flashing **every half second (rapid flashing)**.
- **Cause:** Check the electrical circuit. Check the reset switch. If both check OK, then the unit has possibly overheated. Unplug the machine and allow it to cool for 15-30 minutes. Plug it back in and try running the machine. The Motor NTC signal is not being received by the PCB. Check NTC connection at the PCB. If this does not resolve issue, then expect Motor NTC is open – replace motor.

- **Symptom:** No response when the START/STOP switch OR PULSE/LOW/HIGH switch is activated.
- **Cause:** Ensure the power outlet is operational. Ensure that the circuit breaker on the bottom of the machine is in the ON position. Start/Stop switch may be defective. Pulse/Low/High switch may be defective.

- **Symptom:** Start/On Stop switch is binding.
- **Cause:** Ensure switch is free of debris. Gently clean around edges.

- **Symptom:** High/Low/Pulse switch is binding.
- **Cause:** Ensure switch is free of debris. Gently clean around edges.

- **Symptom:** Timer control knob is binding.
- **Cause:** Ensure there is no debris behind timer control knob. Pull straight back on knob. Clean any debris from backside of knob.

- **Symptom:** Timer Control knob fails.
- **Cause:** Possible loose connection between control board and timer control board. Possible timer control board failure. Possible control board failure. Refer to repair guide.

- **Symptom:** Blender is tripping circuit breaker at wall panel.
- **Cause:** Unit needs a dedicated 15 amp circuit (no additional electrical devices should be operating on this circuit). If unit is tripping circuit breaker while operating on a dedicated circuit the cause could be a short on the control board.

- **Symptom:** LED light comes on but the machine will not start.
- **Cause:** The most probable cause is control board failure. Refer to repair guide.

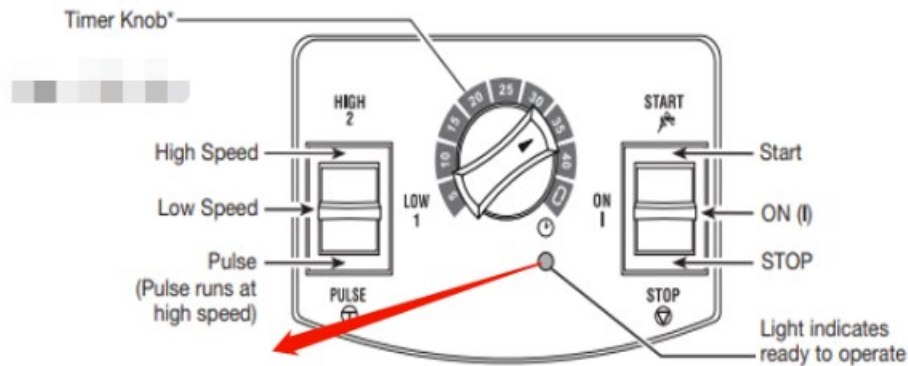
- **Symptom:** Unit is noisy.
- **Cause:** Cutter assembly on container possibly worn. Drive coupling on blender base possibly worn. Refer to repair guide.

 4421 Waterfront Drive Glen Allen, VA 23060	Revision	Added ERROR message info for troubleshooting					Rev. Date:
	Description:						09-Aug-2023
	Request #:	DOC13319	Page:	1 of 9	Document #:	520011900	Rev: B

Technical Data Sheet, GB46, 220-240V

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- **Symptom:** Unit sounds like it is running wide open.
- **Cause:** Possible RFI Board failure, possible Control Board failure. Refer to Repair Guide.
- **Symptom:** RED LED is flashing every second (slow flashing).
- **Cause:** Jar / container is not in place on base. Replace container. Magnet(s) on bottom of container are damaged or missing. Obtain a replacement jar / container.
- **Symptom:** RED LED is illuminated (no flashing).
- **Cause:** This is not a FAULT condition. This shows the unit is connected to power, power switch is ON. Jar / container is in place on base.
- **Symptom:** RED LED flashes 8 times.
- **Cause:** Motor Overspeed condition – indicating a defective Triac and the PCB needs to be replaced.
- **Symptom:** RED LED flashes 4 times.
- **Cause:** This indicates a Motor locked rotor condition - indicating the PCB is not getting Hall Effect signal - motor shaft is not turning). Remove container and determine what is preventing the cutter assembly from turning. If cutter assembly is free to turn, then motor is defective – something is preventing the motor to turn (locked bearings, damaged commutator/brushes, etc.) – replace motor.



Alarm LED for error codes

Repair Guide

Housing Disassembly (See Figure 1.)

- Turn power switch to the off position and unplug the machine for any repair or parts replacement.
- Remove the jar pad.
- Remove drive coupling.
- Remove the four screws under jar pad feet.

Hamilton Beach 4421 Waterfront Drive Glen Allen, VA 23060	Revision	Added ERROR message info for troubleshooting					Rev. Date:	
	Description:						09-Aug-2023	
	Request #:	DOC13319	Page:	2 of 9	Document #:	520011900	Rev:	B

Technical Data Sheet, GB46, 220-240V

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- Carefully lift the upper housing off and tilt it towards the front of the machine; movement will be limited by wires.

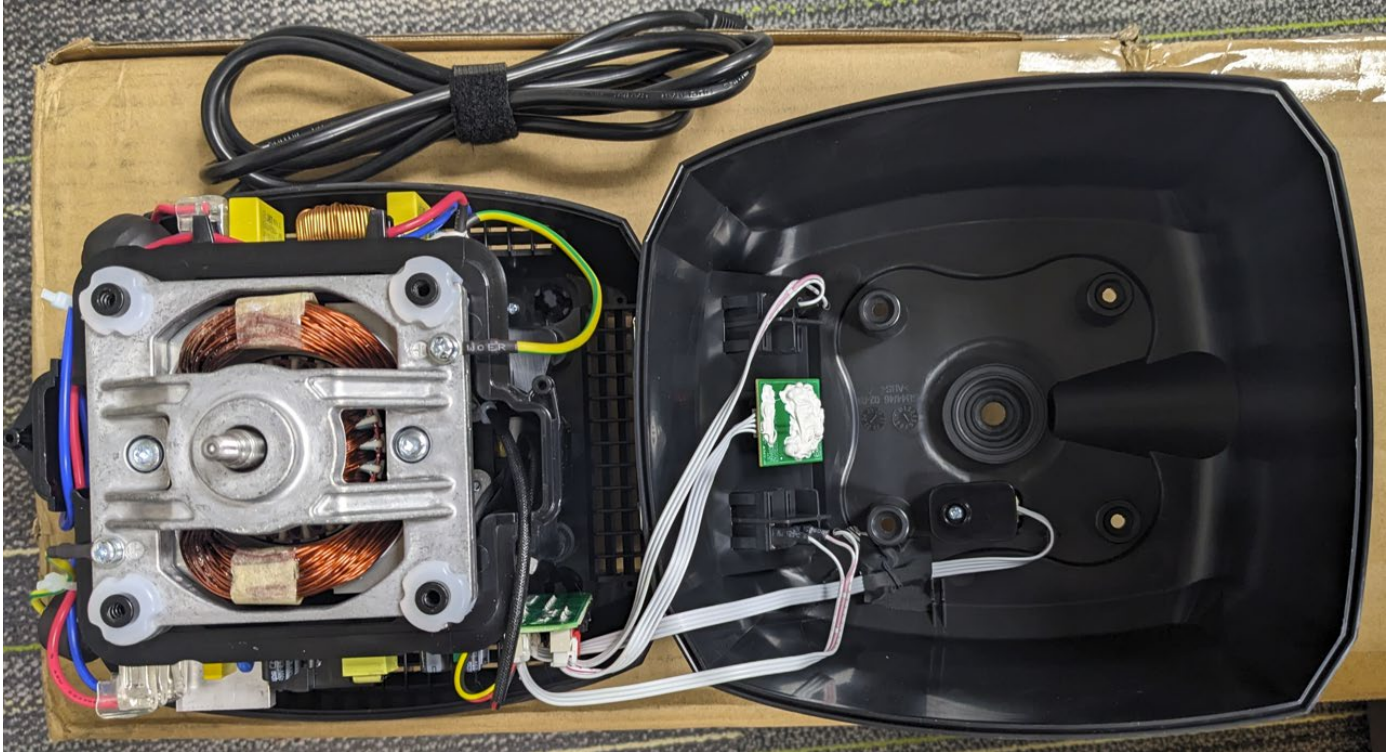


Figure 1. Machine Interior.

Hamilton Beach 4421 Waterfront Drive Glen Allen, VA 23060	Revision	Added ERROR message info for troubleshooting				Rev. Date:	
	Description:					09-Aug-2023	
	Request #:	DOC13319	Page:	3 of 9	Document #:	520011900	Rev: B

Technical Data Sheet, GB46, 220-240V

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Circuit Breaker and Cord Socket Wiring Details (See Figure 2)

- Blue wire from power cord socket left terminal “N” routes through the large EMC filter coil and to the “IN_N” terminal of the RFI Board.
- Red wire from the “IN_L” terminal of the RFI board routes through the large EMC filter coil and to Reset terminal of circuit breaker/On-Off switch.
- Yellow/Green striped wire routes from center terminal of cord socket through the small EMC filter coil to the motor chassis (ground).
- Brown wire routes from the power cord socket right terminal “L” of the cord socket to the OFF terminal of the circuit breaker.

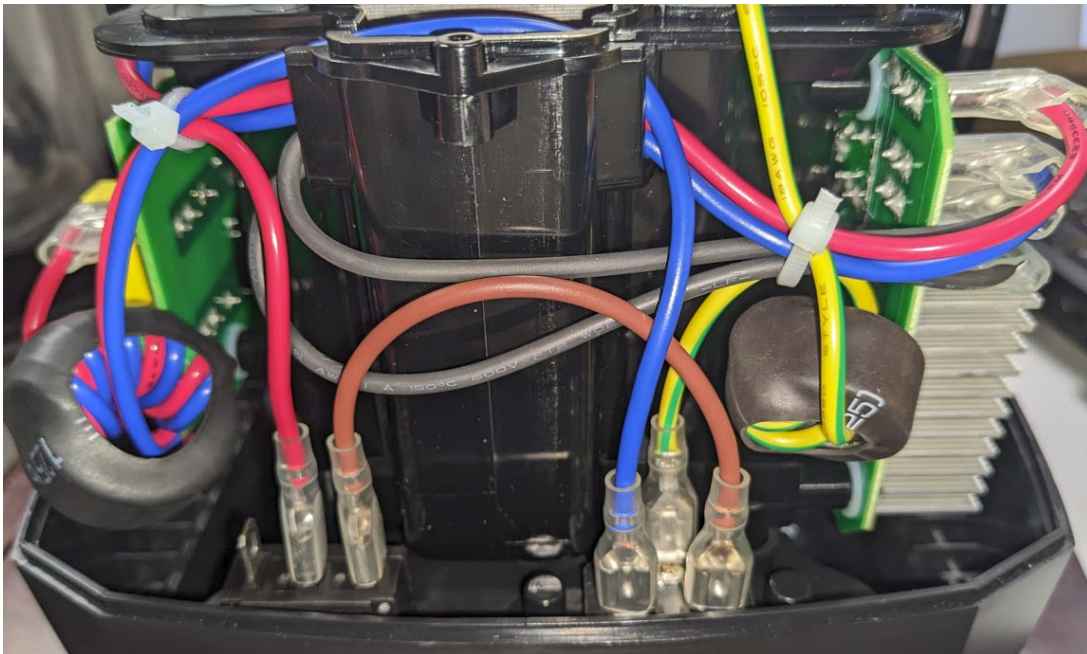


Figure 2. Interior View of Power Cord Socket and Non-illuminated Circuit Breaker Switch

RFI Filter Wiring Details (See Figure 3.)

- Blue wire (on right) from power cord socket left terminal “N” routes through the large EMC filter coil and to the “IN_N” terminal of the RFI Board.
- Red wire (on right) from the “IN_L” terminal of the RFI board routes through the large EMC filter coil and to Reset terminal of circuit breaker/On-Off switch.
- Blue wire (on left) from the “OUT_N” terminal of the RFI Board routes to the “N” terminal on the Power PCB.
- Red wire (on left) from the “OUT_L” terminal of the RFI board routes to the “L” terminal on the Power PCB.
- Yellow/Green striped wire (on left) routes to the motor chassis.

Hamilton Beach 4421 Waterfront Drive Glen Allen, VA 23060	Revision	Added ERROR message info for troubleshooting					Rev. Date:	
	Description:						09-Aug-2023	
	Request #:	DOC13319	Page:	4 of 9	Document #:	520011900	Rev:	B

Technical Data Sheet, GB46, 220-240V

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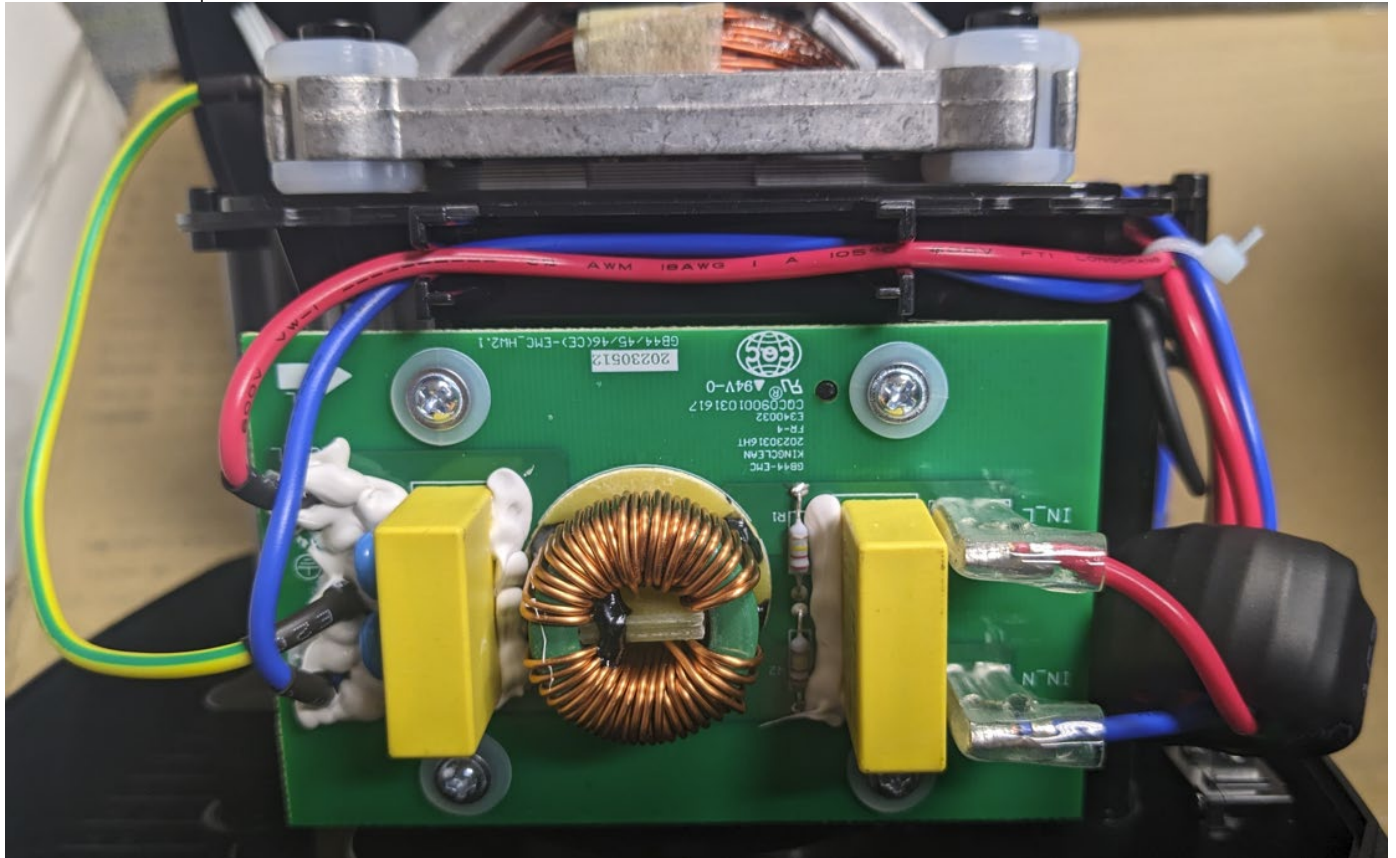


Figure 3. RFI FILTER

RFI Board Removal and Replacement

- Disconnect wires from RFI board, mark if necessary or refer to wiring detail for proper placement.
- Remove the four Phillips screws and gently pull the RFI board

Hamilton Beach 4421 Waterfront Drive Glen Allen, VA 23060	Revision	Added ERROR message info for troubleshooting				Rev. Date:	
	Description:					09-Aug-2023	
	Request #:	DOC13319	Page:	5 of 9	Document #:	520011900	Rev: B

Technical Data Sheet, GB46, 220-240V

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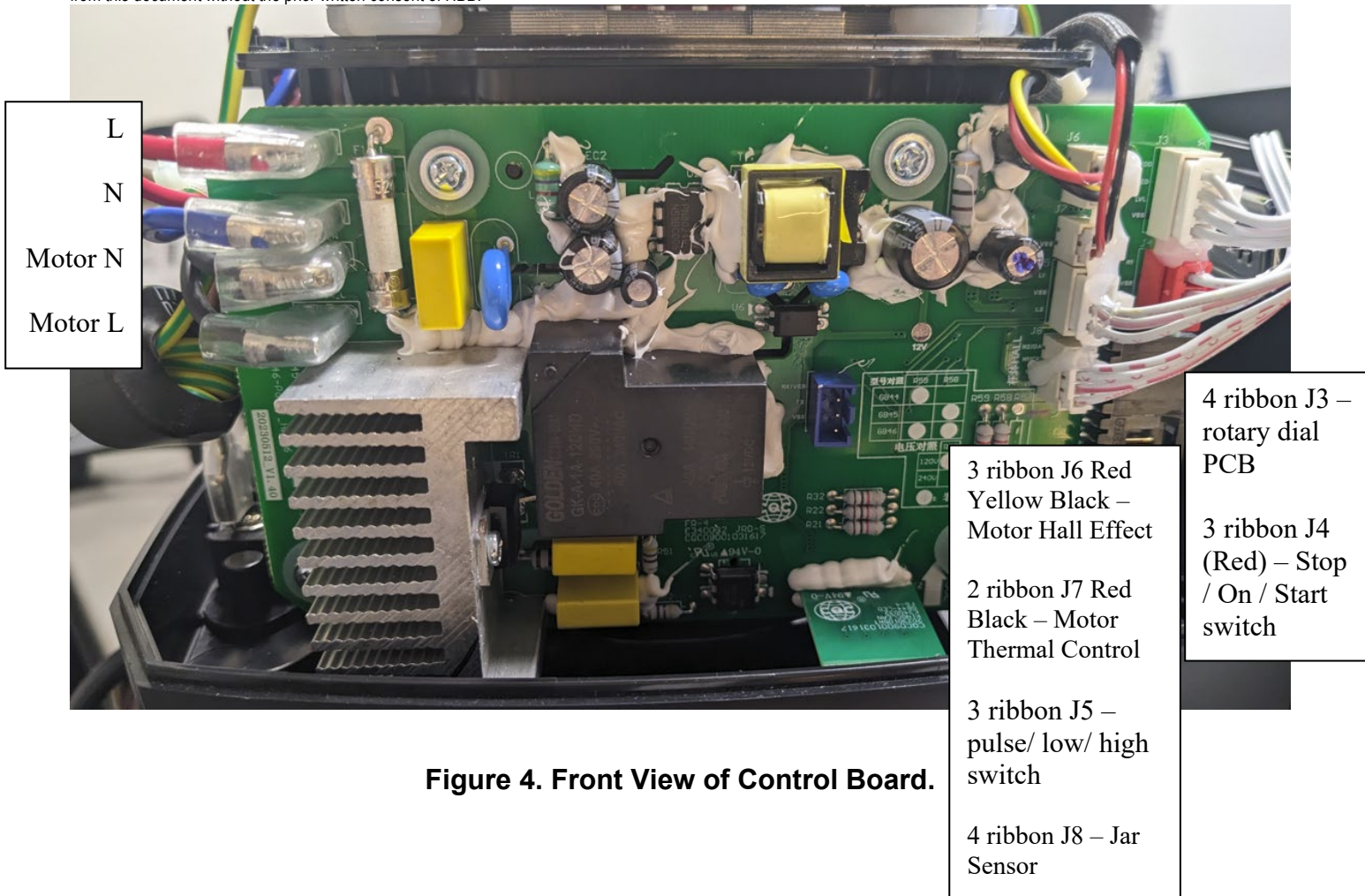


Figure 4. Front View of Control Board.

Control Board Wiring Details (Figure 4.) Switch Wiring Details (Figure 5.)

- Red wire (on left) routes to the left side of EMC Board.
- Blue wire (on left) routes to the left side of EMC Board.
- Upper Black wire (on left) routes to the Motor non-thermal control device side.
- Lower Black wire (on left) routes to the Motor thermal control device side.
- Red/Black/Yellow J6 ribbon 3 wires route to the Motor Hall Effect sensor.
- Red/Black J7 ribbon 2 wires route to the Motor NTC Thermal control device.
- White ribbon J5 3 wire (white connector) routes to the Pulse / Low / High switch. NOTE: ribbon is soldered to the switch – not intended to be removed. Switch CARE PART contains ribbon wire.
- White J8 ribbon 4 wires (small connector below the J6, J7 & J5 noted above) route to the Jar Sensor on the underside of the Upper Housing.
- White J3 ribbon 4 wire (large connector upper right in picture) routes to the Rotary Dial PCB on Upper Housing.

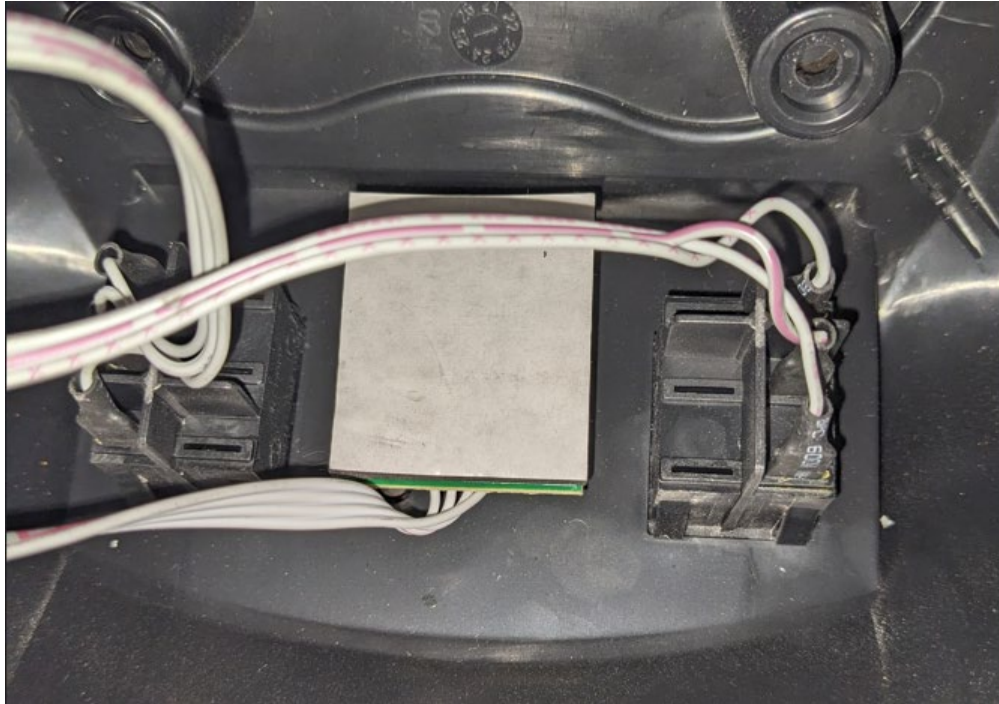
Hamilton Beach 4421 Waterfront Drive Glen Allen, VA 23060	Revision	Added ERROR message info for troubleshooting				Rev. Date:	
	Description:					09-Aug-2023	
	Request #:	DOC13319	Page:	6 of 9	Document #:	520011900	Rev: B

Technical Data Sheet, GB46, 220-240V

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- White ribbon J4 3 wire (red connector) routes to the Stop / On / Start switch. NOTE: ribbon is soldered to the switch – not intended to be removed. Switch CARE PART contains ribbon wire.

Start/On/Stop
Switch (3 wire
w/Red
Connector)



Pulse/Low/High
Switch (3 wire
w/White
Connector)

Figure 5. Interior View of Switches and Timer Control Board with LED and Wires Connected.

Timer Control Board Removal and Replacement (See Figure 5)

- Disassemble upper housing as described above.
- Remove timer control knob by gently prying loose and pulling straight back.
- Remove moisture seal and remove hex nut and washer.
- Timer control board will drop out of upper housing.
- Disconnect ribbon wire from the main PCB board and connect the ribbon from the new timer control board.
- Assemble in reverse order.

Hamilton Beach 4421 Waterfront Drive Glen Allen, VA 23060	Revision	Added ERROR message info for troubleshooting					Rev. Date:	
	Description:						09-Aug-2023	
	Request #:	DOC13319	Page:	7 of 9	Document #:	520011900	Rev:	B

Technical Data Sheet, GB46, 220-240V

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Motor Removal and Replacement

- Disassemble upper housing as described in housing disassembly above.
- Disconnect the motor leads from the control board.
- Remove the ground wire from the motor chassis.
- Lift the motor from the lower housing.
- Assemble in reverse order.

Motor Wiring Details

- Black motor lead from the non-thermal control device side of the motor routes to terminal MOTOR N on the Control Board.
- Black motor lead from the thermal control device side of the motor routes to MOTOR L on the Control Board.

Control Board Removal and Replacement

- Disconnect wires from control board one at a time and mark if necessary for placement.
- Remove the four screws holding the control board in place.
- Lift the control board from the lower housing.
- Place new control board on to lower housing, replace wires and screws.

Switch Removal and Replacement

- Remove upper housing as described above.
- Disconnect wires from switch terminals. Mark wires if necessary for reference.
- Cut wire ties if necessary.
- Push in and down at each corner of switch retaining bracket.
- Replacement of the control panel label may be required.
- Install new switch into switch opening in upper housing.
- Re-install wire ties as needed.
- Assemble wires onto switch.
- Re-assemble upper housing.

Replacing the Control Panel

- Remove switches, timer control knob, moisture seal, and timer control board.
- Start at one edge and remove slowly from upper housing.
- Remove any adhesive residue using a mild adhesive remover such as Goo Gone.
- Allow housing to completely dry and replace with a new control panel.
- Assemble switches, timer control board, moisture seal, and timer control knob in reverse order.
- Replace wire ties as needed.

 4421 Waterfront Drive Glen Allen, VA 23060	Revision	Added ERROR message info for troubleshooting					Rev. Date:
	Description:						09-Aug-2023
	Request #:	DOC13319	Page:	8 of 9	Document #:	520011900	Rev: B

Technical Data Sheet, GB46, 220-240V

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Replacing the Drive Coupling

- Turn the unit upside down. Remove bottom cover. Place a Flat Screwdriver into the bottom of the motor drive.
- Grasp the drive coupling at the top of the blender base with non-slip tool and hold the screwdriver in place while turning the drive coupling counterclockwise. Alternate method: use a 14mm 12point socket in an impact driver set to CCW direction. This will loosen the drive coupling enough so that it can be removed by hand. Replace with new drive coupling.

A 12point socket (not 6 point) with an impact driver will quickly remove the clutch



12 point on left, 6 point on right

Testing the container for a frozen or worn cutter assembly

- Remove the container from the blender base. Hold the container by the handle and slowly turn the coupling at the bottom of the container. The blades of the cutter assembly should turn freely without wobbling or binding.

How to Determine Cycle Count

- Turn the power switch to OFF.
- Unplug the machine.
- Turn the machine upside down so that you can look into grid holes on the bottom, front right of machine.
- Plug the machine in and turn the power switch to the ON position.
- Count the number of flashes from the LED lights; first red, then yellow, then green.
- Example: Red- 2, Yellow- 0, Green- 8. You have recorded 208.
- At the end add two zeros. Your cycle count = 20,800.

 4421 Waterfront Drive Glen Allen, VA 23060	Revision	Added ERROR message info for troubleshooting					Rev. Date:	
	Description:						09-Aug-2023	
	Request #:	DOC13319	Page:	9 of 9	Document #:	520011900	Rev:	B