

Service Manual

Models

North America

ULT50-AM

ULT60-AM

ULT74-AM

ULT88-AM

ULT100-AM

Europe

ULT40-EU

ULT50-EU

ULT60-EU

ULT74-EU

ULT88-EU

Australia

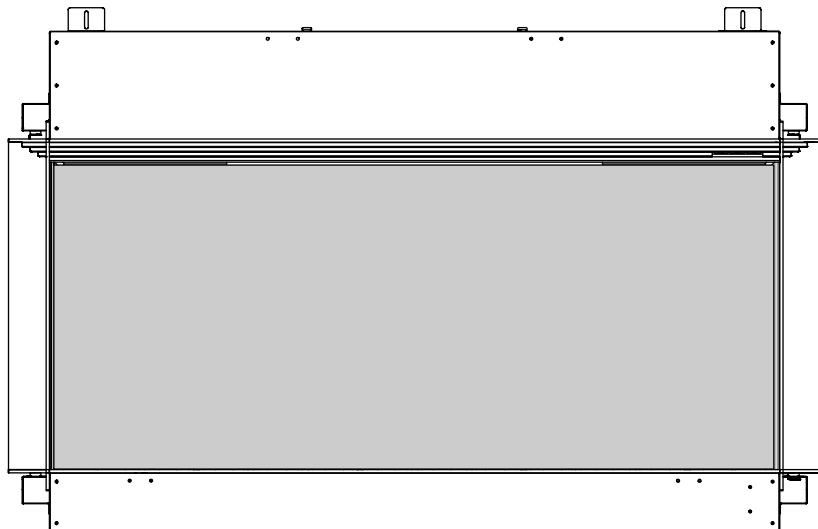
ULT40-AU

ULT50-AU

ULT60-AU

ULT74-AU

ULT88-AU



IMPORTANT SAFETY INFORMATION:

Read this manual first before attempting to install or use this electric fireplace. Always comply with the warnings and safety instructions contained in this manual to prevent personal injury or property damage.

Conventions used in this manual:

! **NOTE:** Procedures and techniques that are considered important enough to emphasize.

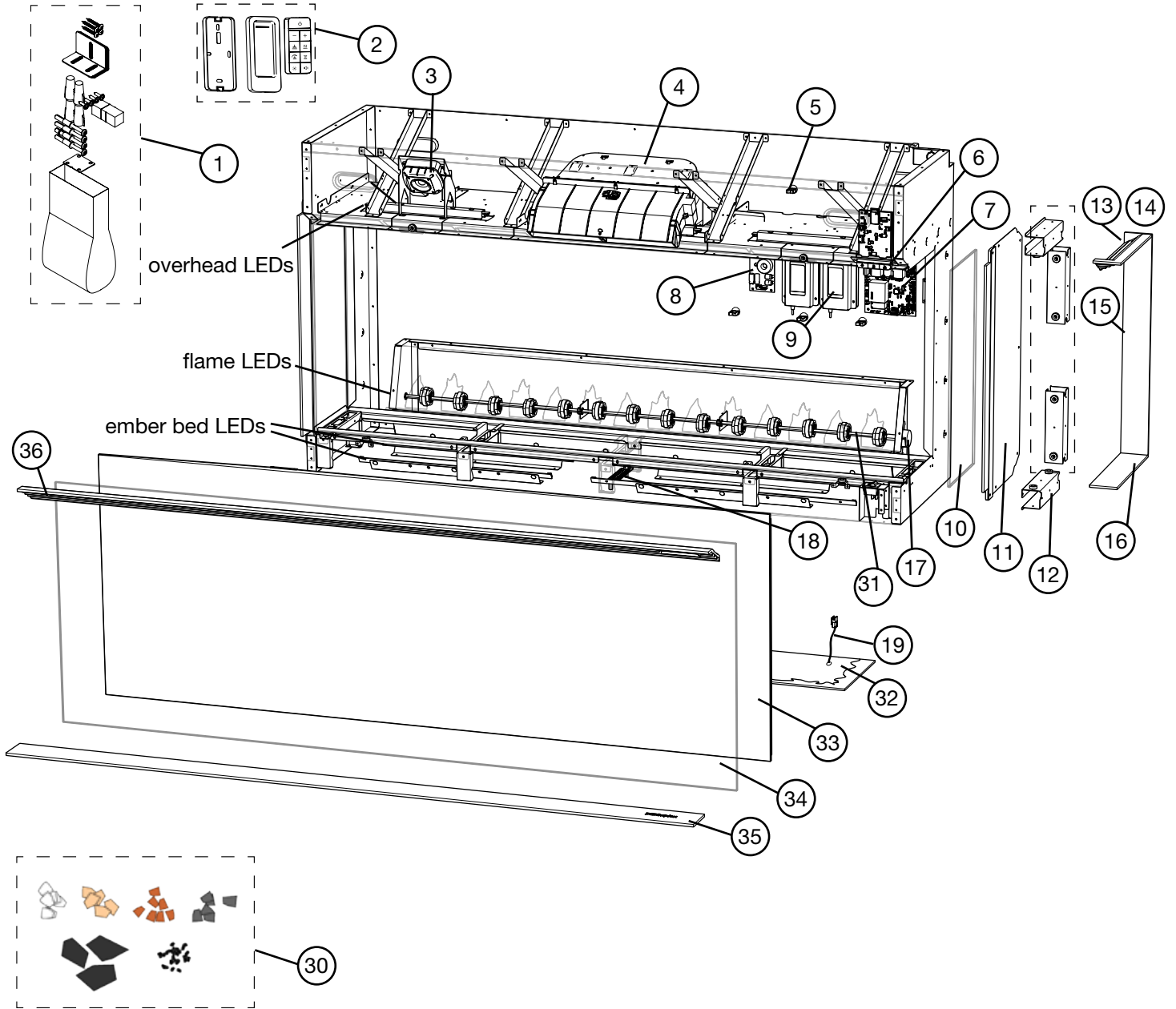
⚠ **CAUTION:** Procedures and techniques which, if not carefully followed, will result in damage to the equipment.

⚠ **WARNING:** Procedures and techniques which, if not carefully followed, will expose the user to the risk of fire, serious injury, or death.

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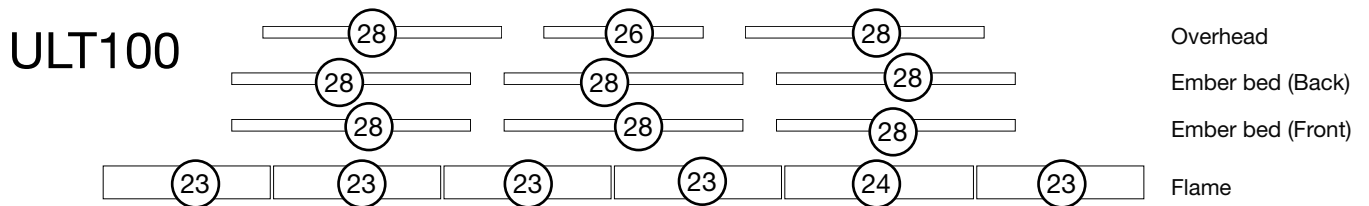
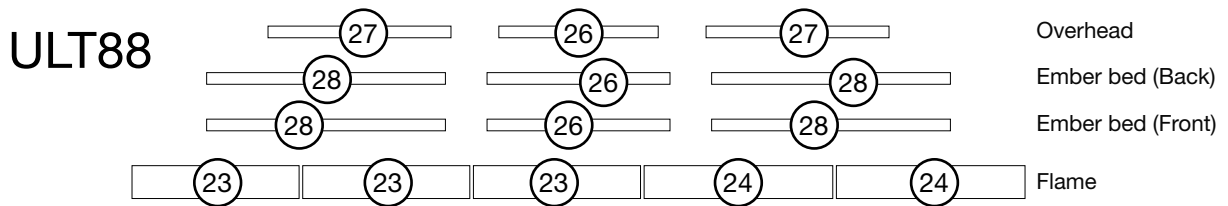
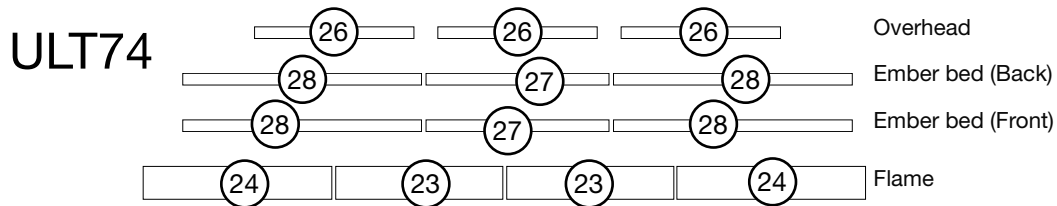
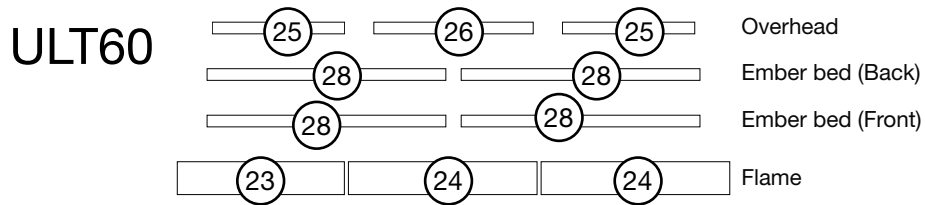
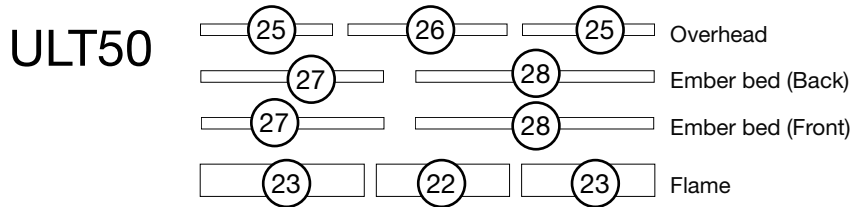
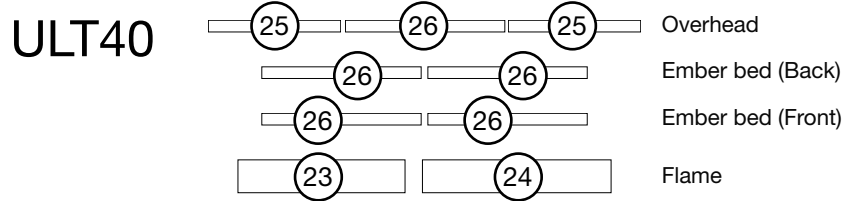
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Exploded Parts Diagram



! NOTE: ULT74, ULT88, ULT100 use
TWO replacement media kits

LED Configurations



North America

Replacement Parts List

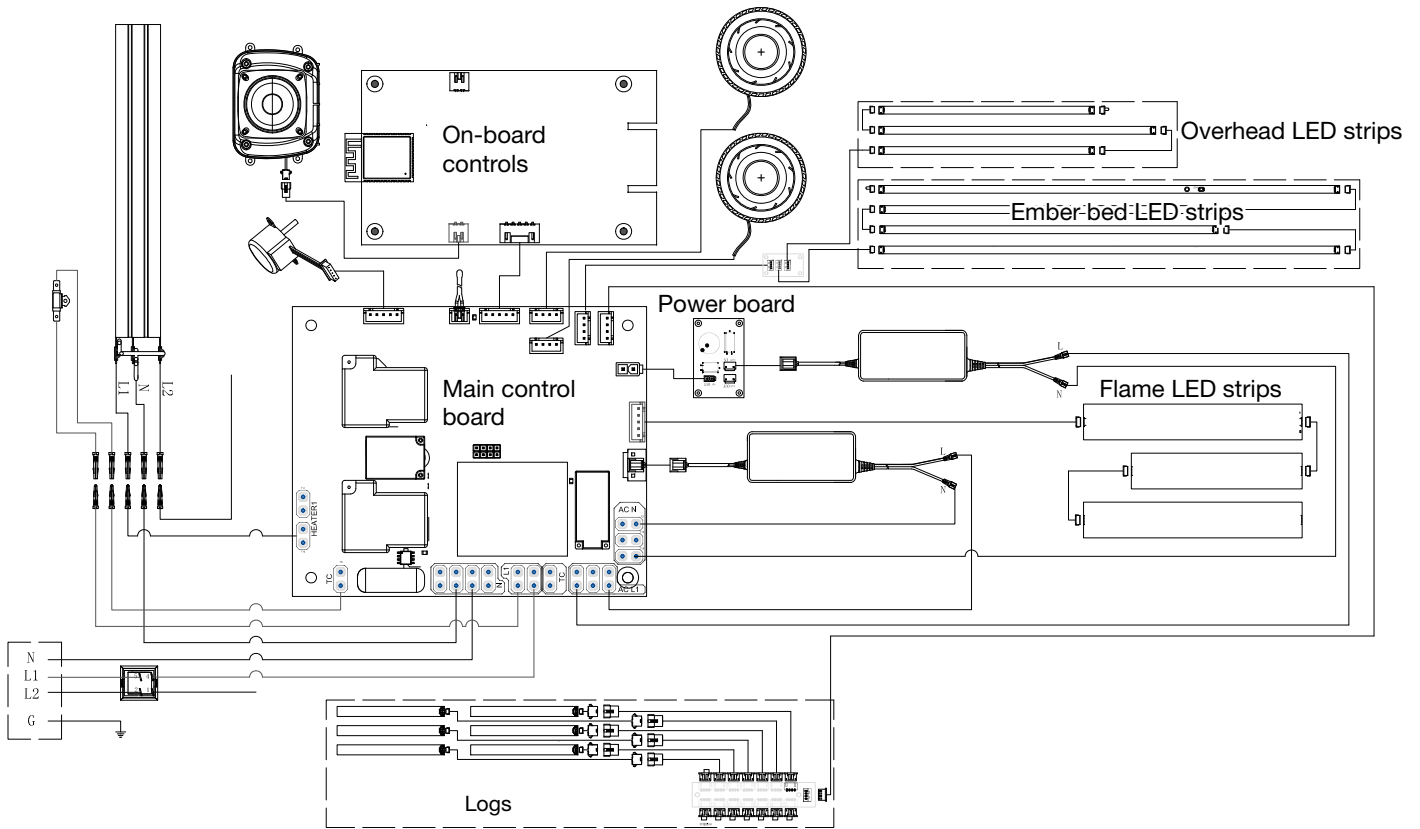
1	Hardware kit	500003777
2	Remote control	500003384
3	Speaker	500003391
4	Heater Assembly	500003383
5	Temperature sensor	X-3001560600RP
6	On-board controls	500003386
7	Main control board	500003385
8	Power board	500003869
9	Power supply 5 A	X-2100250500RP
10	Side glass (1)	500003641
11	Side panel (1)	500003773
12	Side bracket set	500003862
13	Side trim top - left	500003764
14	Side trim top - right	
15	Side trim rear	500003733

16	Side trim bottom	500003732
17	Flicker motor	X-2000550100RP
18	Log expansion board	500003782
19	Log wire harness	500003780
20	Power cord	500003779
21	Heater jumper	X-4300520100RP
22	4-segment flame LED	500003392
23	5-segment flame LED	500003393
24	6-segment flame LED	500003394
25	4-segment RGB LED	X-3002350100RP
26	5-segment RGB LED	X-3002350400RP
27	6-segment RGB LED	X-3002350200RP
28	8-segment RGB LED	X-3002350300RP
29	Complete log set	500003775
30	Tumbled glass <i>ULT74, ULT88, ULT100 use TWO</i>	500003395

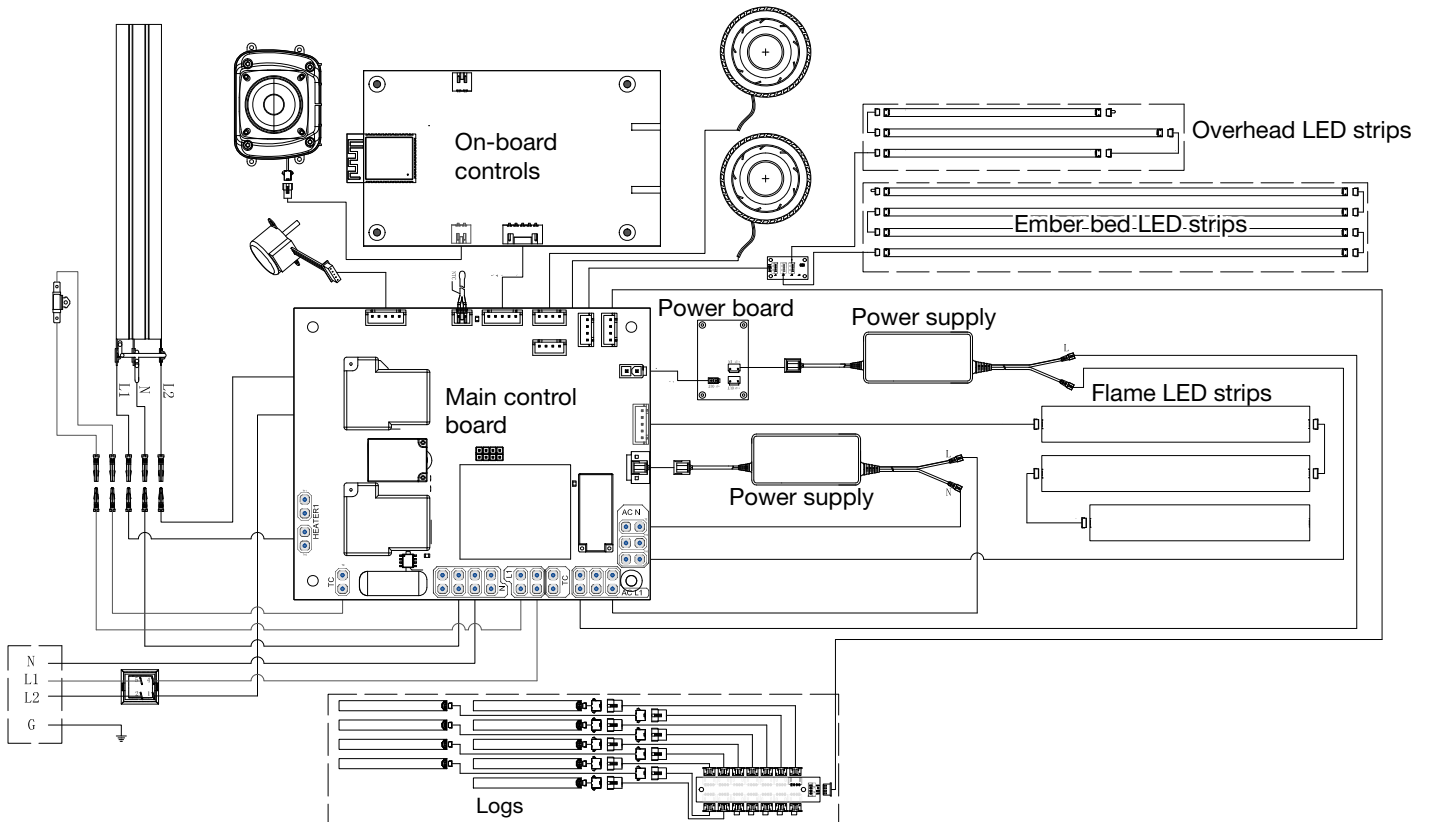
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31	Flicker rod	500003649	500003650	500003651	500003652	500003653
32	Ember bed	500003655	500003656	500003657	500003658	500003659
33	Reflective glass	500003643	500003644	500003645	500003646	500003647
34	Front glass	500003606	500003607	500003608	500003609	500003640
35	Sill trim	500003735	500003750	500003751	500003752	500003753
36	Front grill	500003755	500003760	500003761	500003762	500003763
37	Flame board	N/A	N/A			

Wiring Diagrams - North America

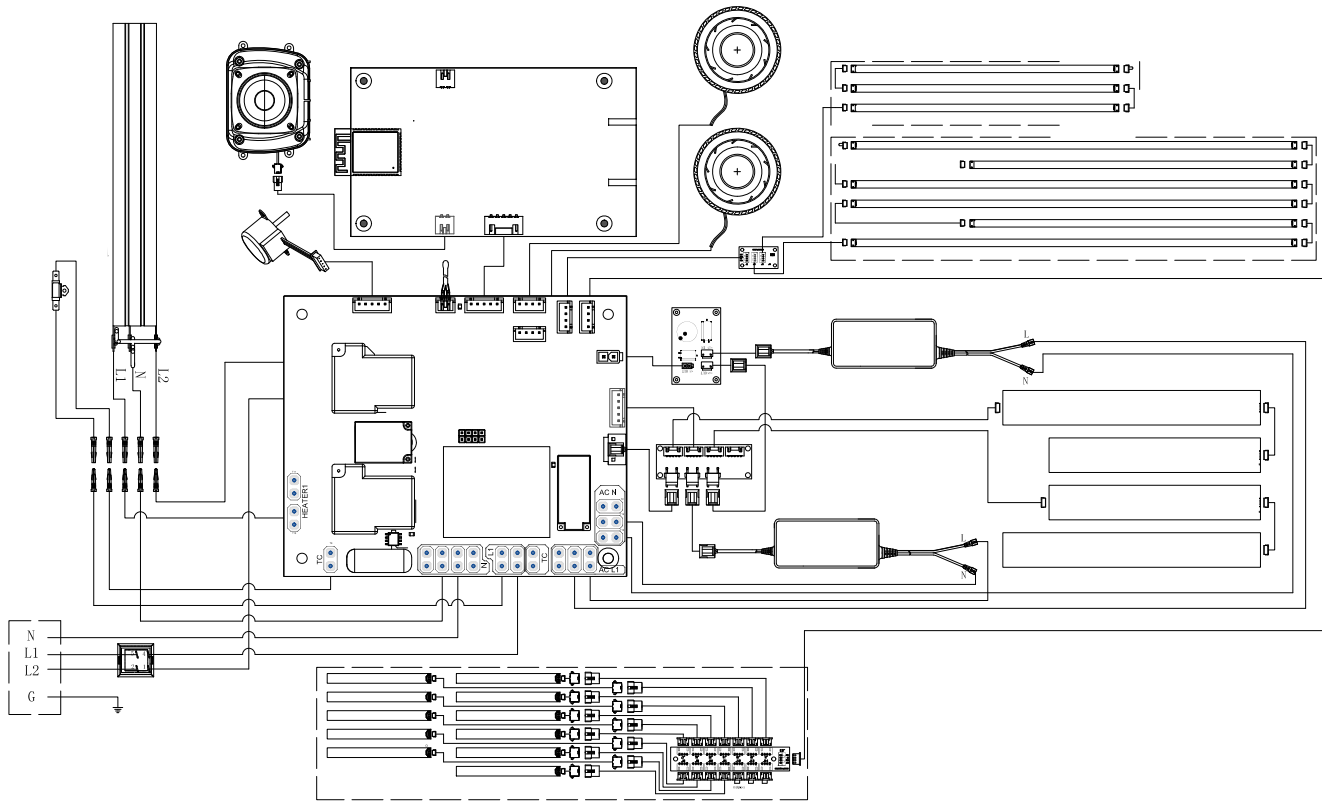
ULT50-AM



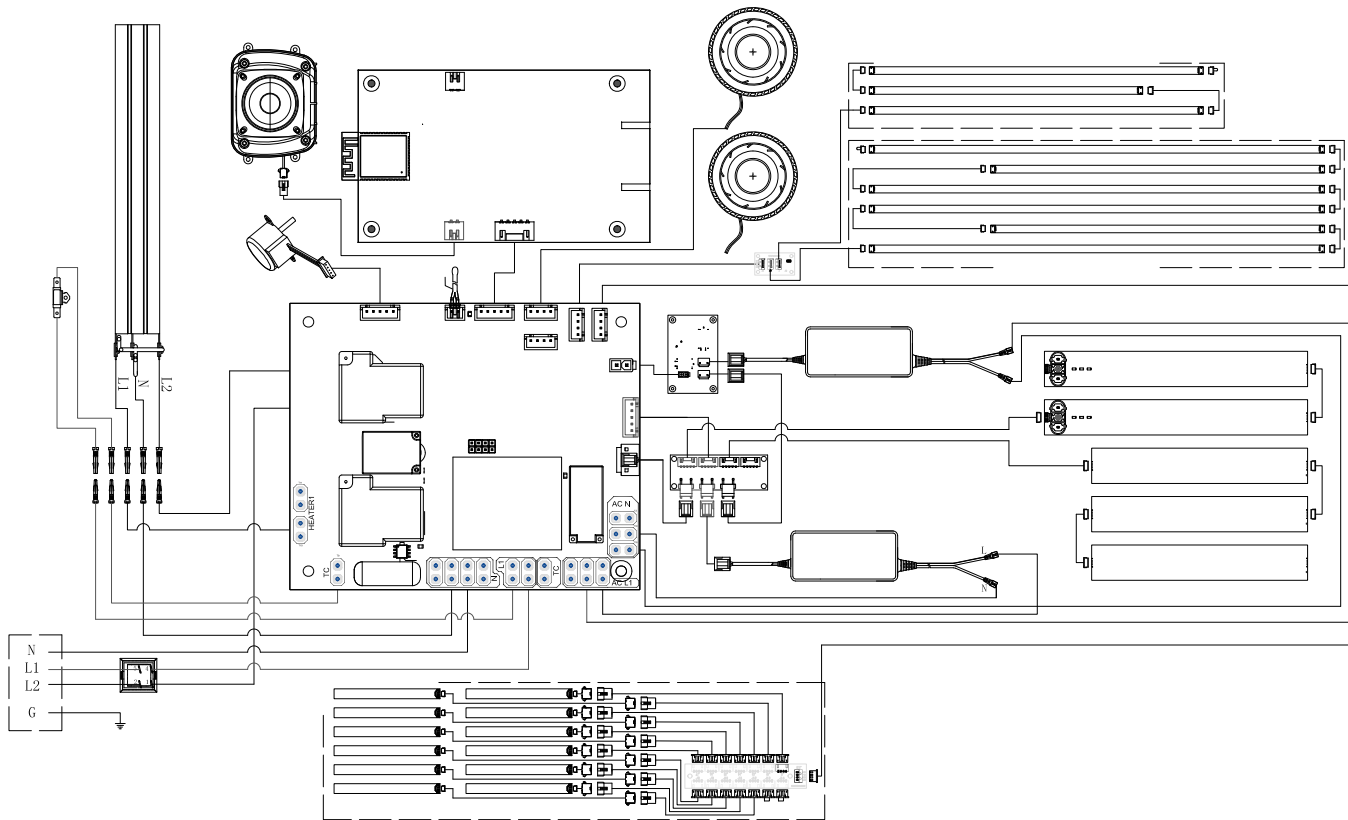
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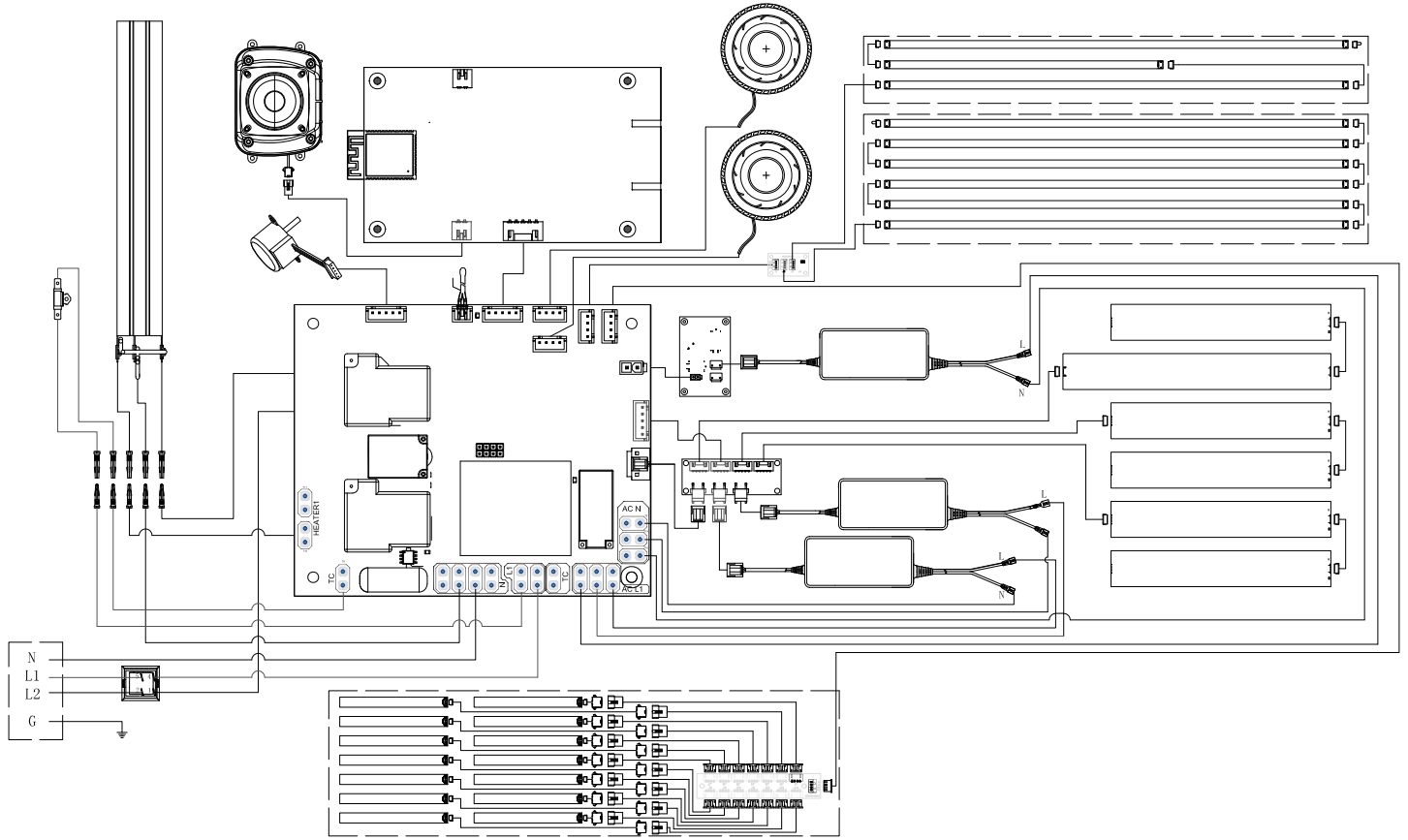
ULT74-AM



ULT88-AM



ULT100-AM



Replacement Parts List

1	Hardware kit	
2	Remote control	
3	Speaker	
4	Heater Assembly	
5	Temperature sensor	
6	On-board controls	
7	Main control board	
8	Power board	
9	Power supply 5 A	
10	Side glass (1)	
11	Side panel (1)	
12	Side bracket set	
13	Side trim top - left	
14	Side trim top - right	
15	Side trim rear	

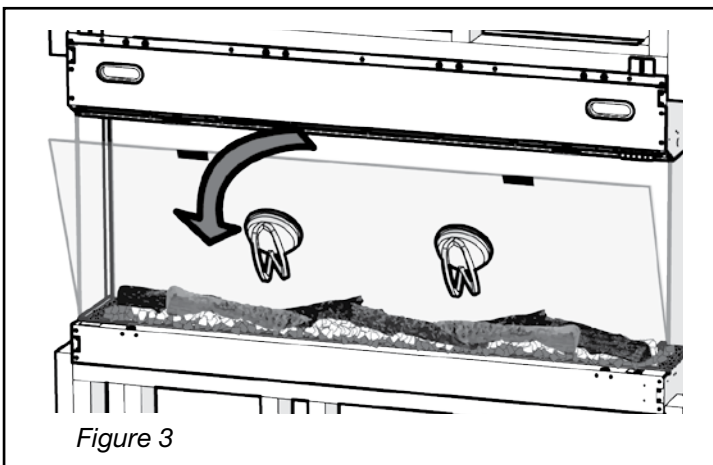
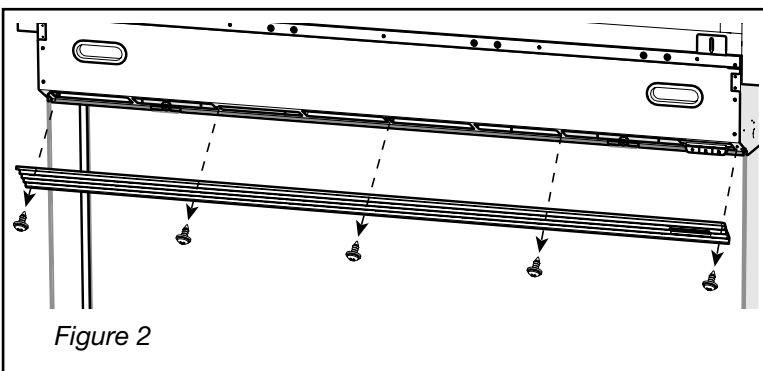
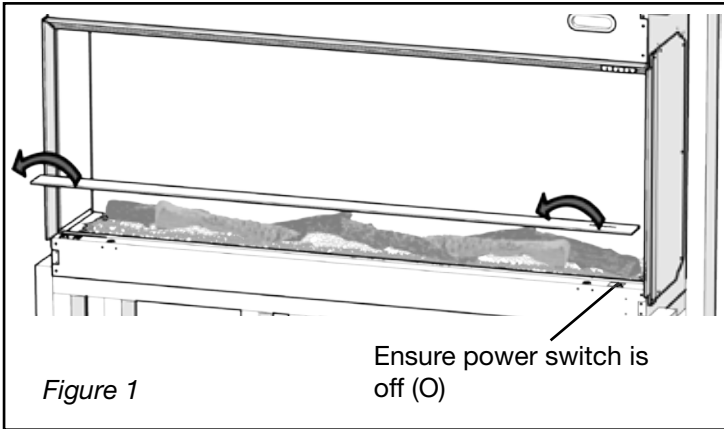
16	Side trim bottom	
17	Flicker motor	
18	Log expansion board	
19	Log wire harness	
20	Power cord	
21	Heater jumper	
22	4-segment flame LED	
23	5-segment flame LED	
24	6-segment flame LED	
25	4-segment RGB LED	
26	5-segment RGB LED	
27	6-segment RGB LED	
28	8-segment RGB LED	
29	Complete log set	
30	Tumbled glass <i>ULT74, ULT88, ULT100</i> <i>use TWO</i>	

		ULT50-AM	ULT60-AM	ULT74-AM	ULT88-AM	ULT100-AM
31	Flicker rod	500003649	500003650	500003651	500003652	500003653
32	Ember bed	500003655	500003656	500003657	500003658	500003659
33	Reflective glass	500003643	500003644	500003645	500003646	500003647
34	Front glass	500003606	500003607	500003608	500003609	500003640
35	Sill trim	500003735	500003750	500003751	500003752	500003753
36	Front grill	500003755	500003760	500003761	500003762	500003763
37	Flame board	N/A	N/A			

	Log 1	
	Log 2	
	Log 3	
	Log 4	
	Log 5	
	Log 6	
	Log 7	
	Log 8	

Parts serviced in upper housing

Preparing the firebox for service in upper housing



Heater assembly, on-board controls, overhead LEDs, and speaker are located in the top of the fireplace. The front glass needs to be removed to access these components.

Tools required:

Suction cups (provided with fireplace)
Philips head screwdriver

⚠ WARNING: If the firebox was operating prior to servicing, allow at least 10 minutes for the heating elements to cool off to avoid accidental burning of skin.

⚠ WARNING: Disconnect power before attempting any maintenance to reduce the risk of electric shock or injury to persons.

1. Turn off the power to the fireplace before starting the service.
2. Remove magnetic sill trim. (Figure 1)
3. Remove the 5 screws that secure the top grill (ULT40 3 screws). (Figure 2)
4. Attach the suction cups to the front glass and use them to lift the glass up and tilt it to remove it. (Figure 3)
Note: Set the front glass in a safe place for the duration of the service.

Heater Assembly Replacement

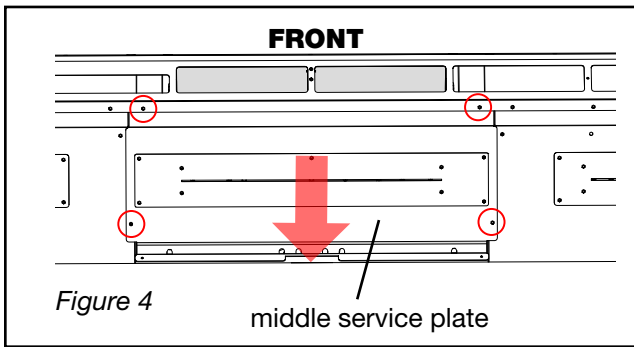
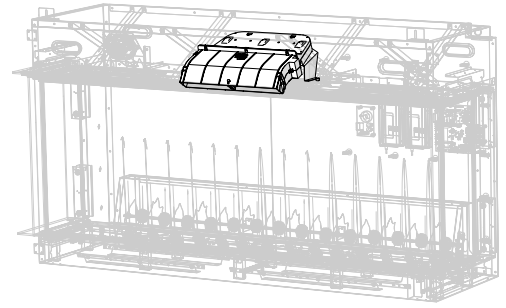


Figure 4

middle service plate

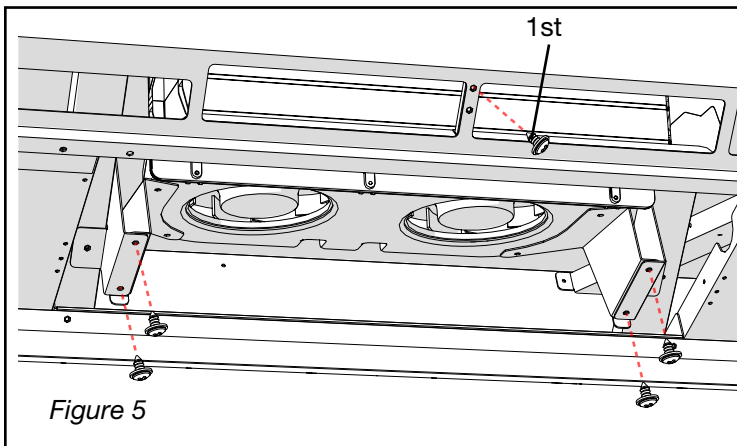


Figure 5

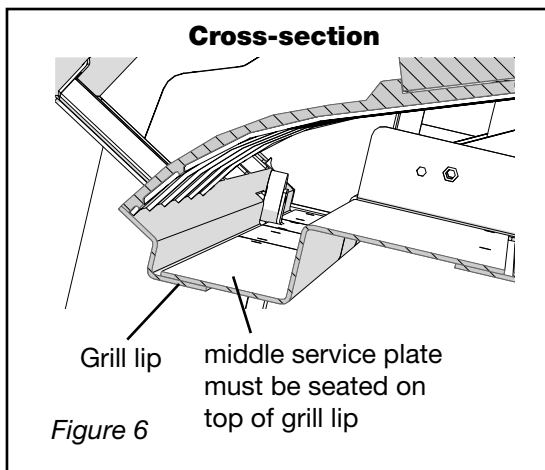


Figure 6

Tools required:

Suction cups (provided with fireplace)
Philips head screwdriver

1. Turn off the power to the fireplace from the electrical panel and follow steps for removing front glass.
2. Remove the 4 screws on the middle service panel. Slide the plate back to release it. (Figure 4)
3. Disconnect the LEDs to remove the plate and set it aside.
4. Remove the 5 screws holding the defective heater, starting with the one on the front grill. (Figure 5)
5. Transfer the connections to the new heater assembly.
6. Secure the new heater assembly, starting with the one at the front on the grill.
7. Reinstall the middle panel assembly, starting from the back, ensuring that:
 - a) the LED strip is reconnected at both ends
 - b) the front of the service panel is tucked inside, sitting on top of the grill lip. (Figure 6)
8. Reassemble the fireplace.

On-board controls replacement

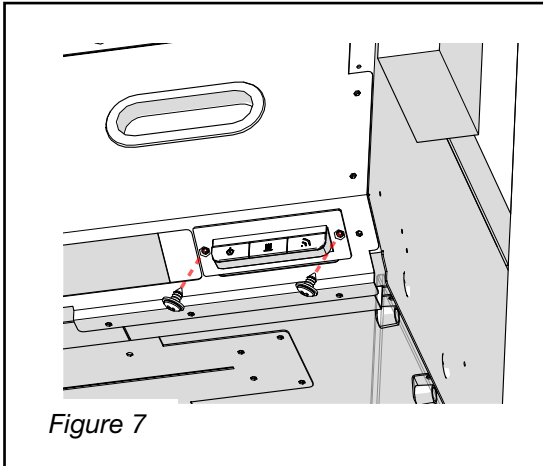
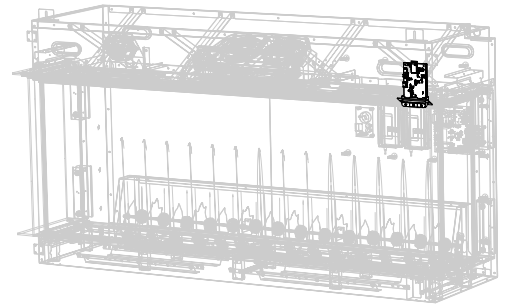


Figure 7

Tools required:
Suction cup (provided with fireplace)
Phillips head screwdriver

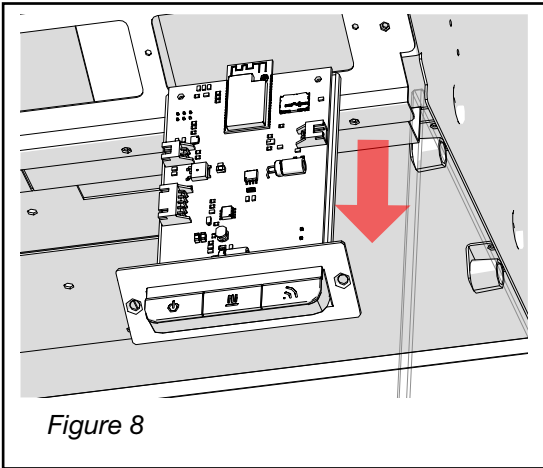


Figure 8

1. Turn off the power to the fireplace from the electrical panel and follow steps for removing the front glass.
2. Remove the 2 screws on each side of the on-board control assembly. (Figure 7)
3. Pull out the defective on-board control assembly. (Figure 8)
4. Transfer the connections from the old board to the new board.
5. Secure the new board.
6. Reassemble the fireplace.
7. Re-synchronize the remote to the new board.

Speaker replacement

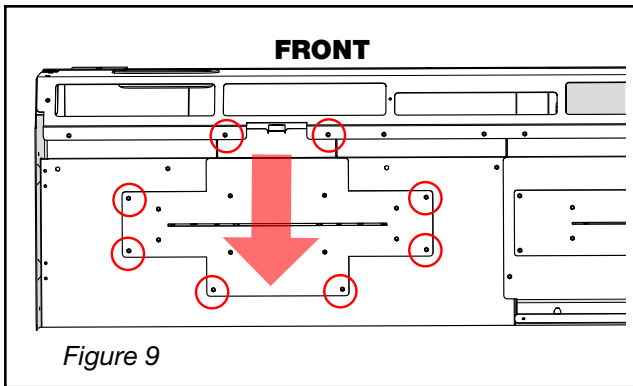
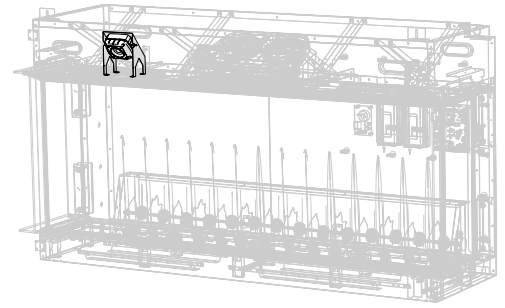


Figure 9

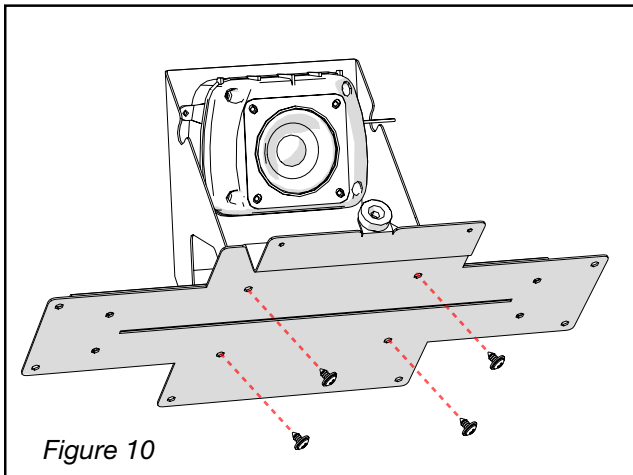


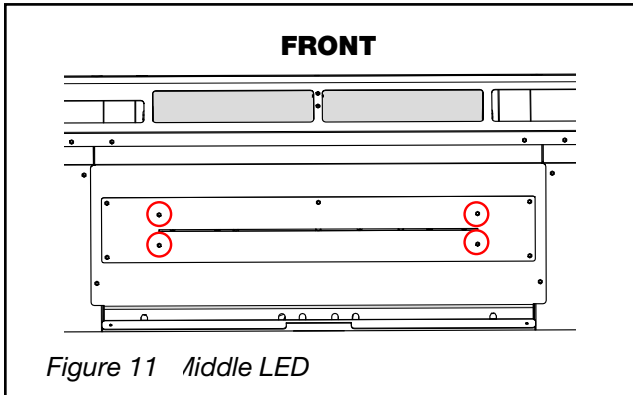
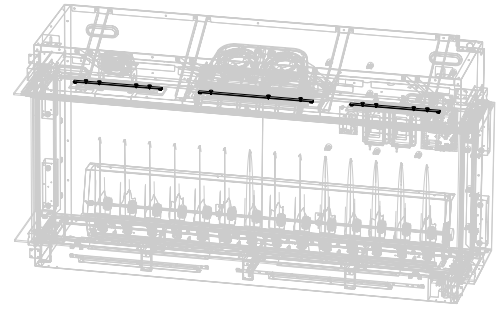
Figure 10

Tools required:

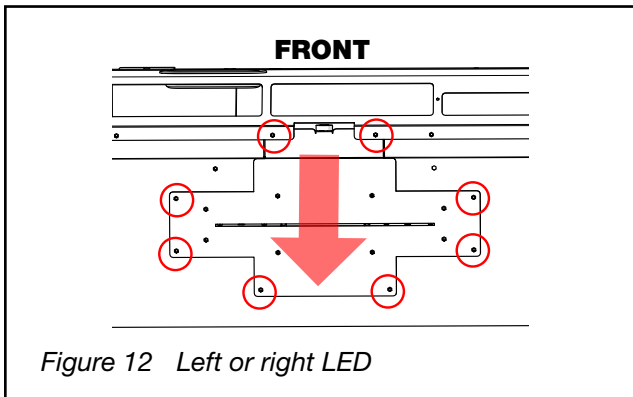
Suction cup (provided with fireplace)
Philips head screwdriver

1. Turn off the power to the fireplace from the electrical panel and follow steps for removing front glass.
2. Remove the 8 screws on the left service panel. Slide the bracket back to release it. (Figure 9)
3. Disconnect the LED connector for more maneuvering room (for ultra).
4. Remove the four screws that hold the speaker. (Figure 10)
5. Transfer the connector to the new speaker.
6. Secure the new speaker.
7. Reconnect the LED if removed.
8. Secure the bracket, ensuring the front part goes inside.
9. Reassemble the fireplace.

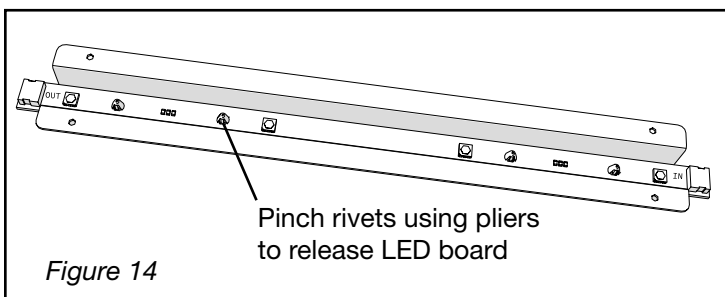
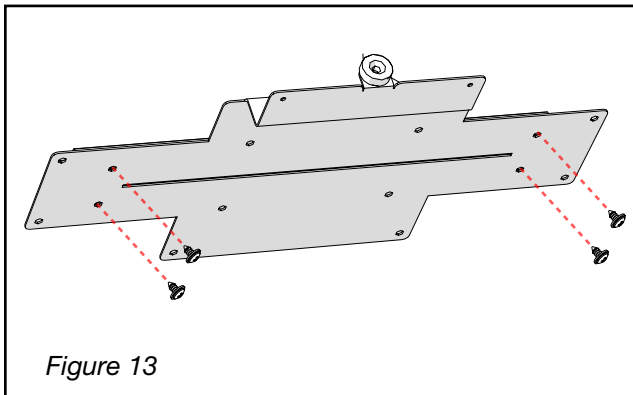
Overheard LED Replacement



Tools required:
 Suction cup (provided with fireplace)
 Philips head screwdriver
 Pliers

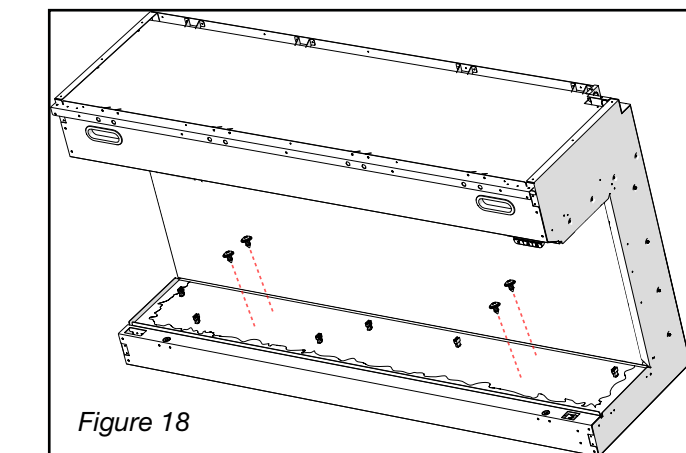
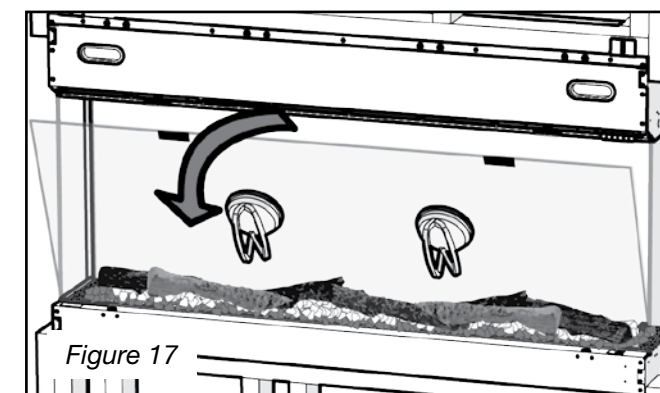
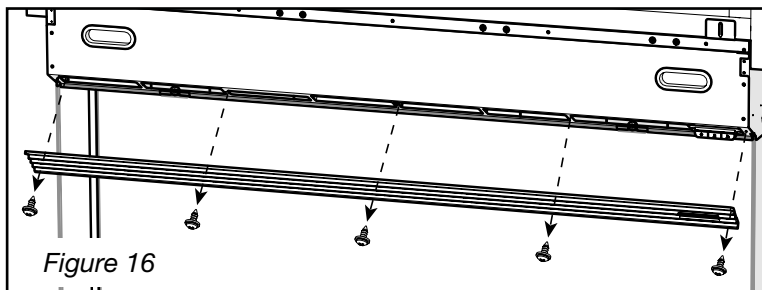
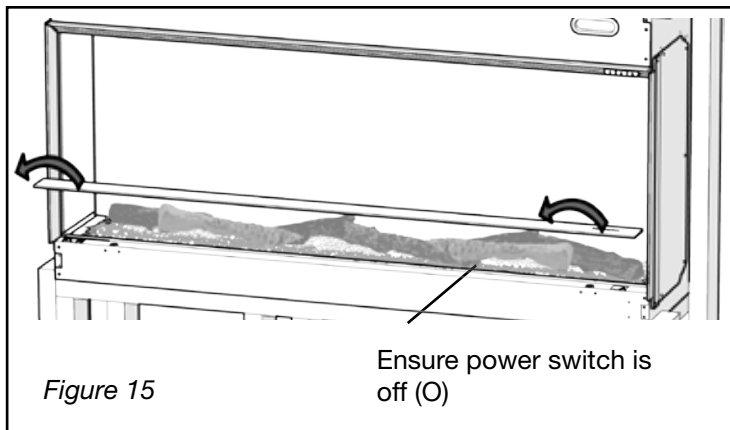


1. Turn off the power to the fireplace from the electrical panel and follow steps for removing front glass.
2. *For middle overhead LED:* Remove the 4 screws on the panel. Disconnect the LED connector. Proceed to step 6. (Figure 11)
For left and right strips: Remove the 8 screws on the panel. Slide the bracket back to release it. (Figure 12)
3. Disconnect the LED connectors.
4. Remove the four screws (two on each end). (Figure 13)
5. Pinch the standoffs while carefully pulling away the board to release it. (Figure 14)
6. Properly orient the board, ensuring that the IN is toward the right.
7. Transfer the connectors from the other side to the new board (the left side has a return wire connector)
8. Reassemble the fireplace.



Parts serviced under the ember bed

Preparing the firebox for service under the media bed



Ember bed LED strips, power switch, and log expansion board are located under the ember bed.

Tools required:

Suction cup (provided with fireplace)
Phillips head screwdriver

⚠ WARNING: If the firebox was operating prior to servicing, allow at least 10 minutes for the heating elements to cool off to avoid accidental burning of skin.

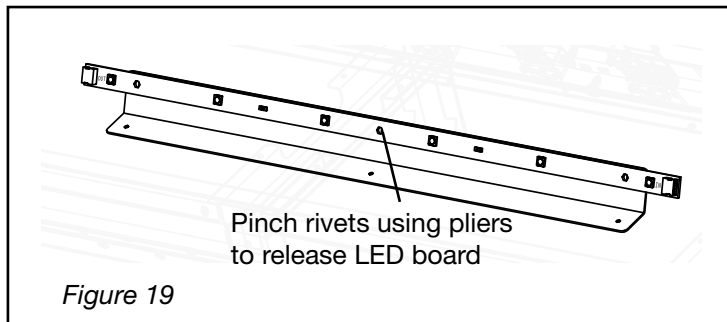
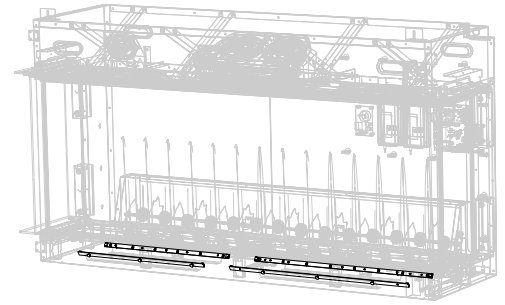
⚠ WARNING: Disconnect power before attempting any maintenance to reduce the risk of electric shock or injury to persons.

1. Turn off the power to the fireplace before starting the service.
2. Remove magnetic sill trim. (Figure 15)
3. Remove the 5 screws that secure the top grill (ULT40 3 screws). (Figure 16)
4. Attach the suction cups to the front glass and use them to lift the glass up and tilt it to remove it. (Figure 17)
Note: Set the front glass in a safe place for the duration of the service.
5. Disconnect each log and set them aside.
6. Remove the tumbled glass media and set aside.
7. Remove the screws that secure the media bed. (Figure 18)
8. Unplug the log wires from the log expansion board
9. Carefully remove the media bed (avoid bending the media bed), ensuring the wires don't get stuck.

When reassembling the fireplace

The logs are powered in series. When reconnecting the logs, the specific order is not important, but if not every connection is used, the connectors on the board need to be filled sequentially since they are powered in series (i.e. 1,2,3,4 – not 1,2,3,5)

Ember bed LED replacement



Tools required:

Suction cup (provided with fireplace)
Philips head screwdriver

1. Turn off the power to the fireplace from the electrical panel and follow steps for servicing components under the ember bed.
2. Disconnect connectors of the defective board
3. Pinch standoffs while carefully pulling the LED strip away to remove it (make note of which side of the LED says IN and OUT). (Figure 19)
4. Properly orient the new LED strip, ensuring that the IN and OUT are oriented correctly and secure it on the standoffs
5. Connect the LED strip.
6. Reassemble the fireplace.

Power switch replacement

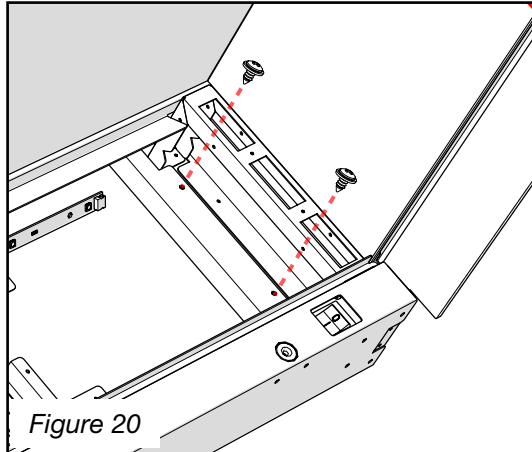
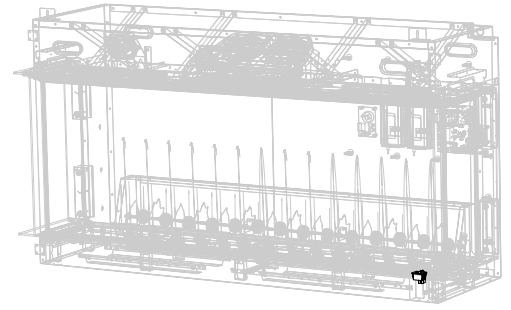


Figure 20

Tools required:

Suction cup (provided with fireplace)
Phillips head screwdriver
Pliers

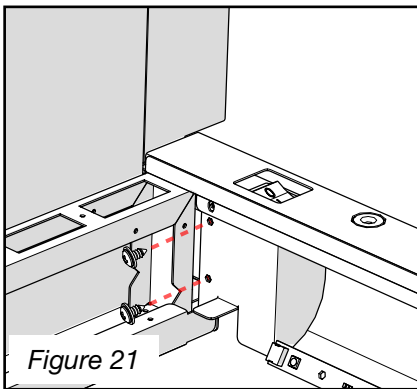


Figure 21

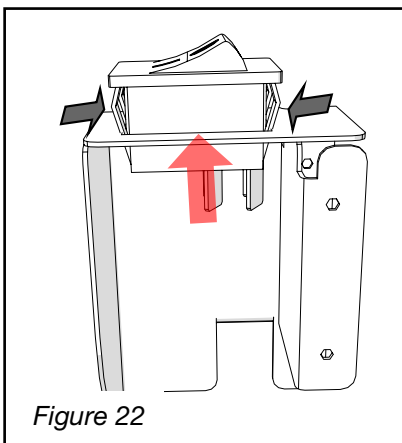
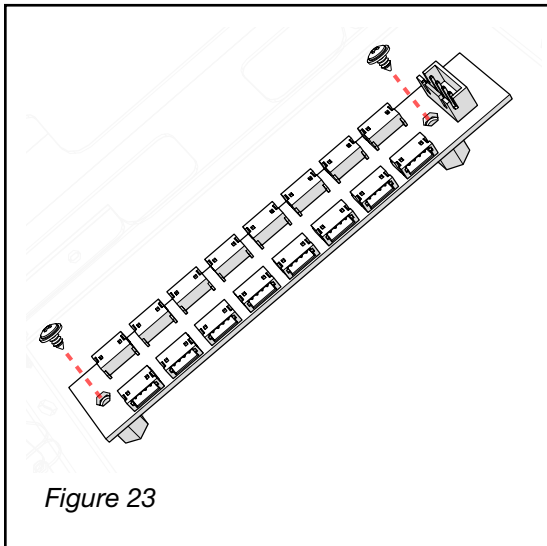
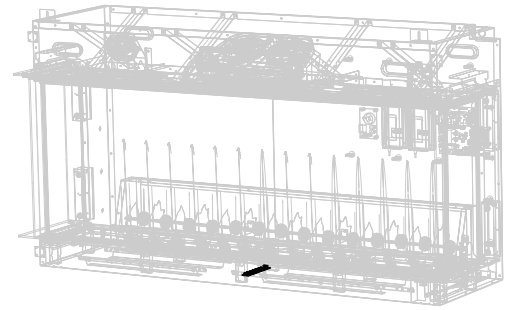


Figure 22

Tools Required: Phillips-Head Screwdriver Pliers

1. Turn off the power to the fireplace from the electrical panel and follow steps for servicing components under the ember bed.
2. Remove the 2 screws on the “raceway” bracket. (Figure 20)
3. Remove the 2 screws on the power switch bracket. (Figure 21)
4. Release the power switch from the bracket. (Figure 22)
5. Transfer the connections to the new power switch.
6. Secure the new power switch the bracket.
7. Secure the power switch bracket.
8. Secure the raceway bracket.
9. Reassemble the fireplace.

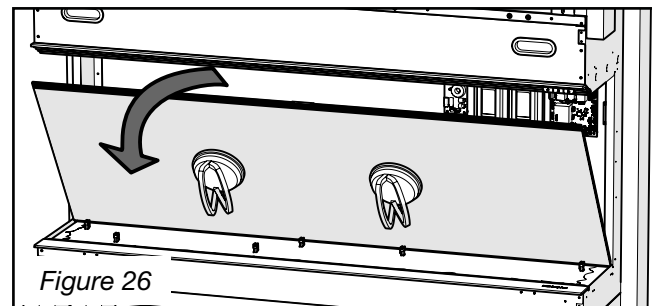
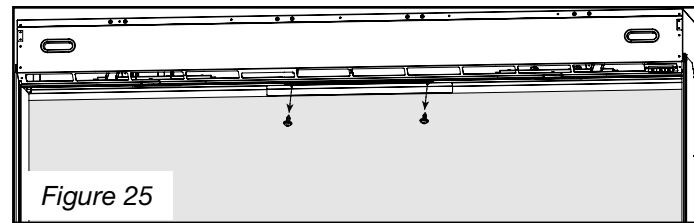
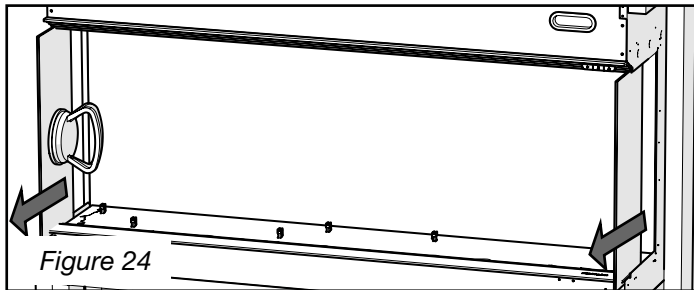
Expansion board replacement



1. Turn off the power to the fireplace from the electrical panel and follow steps for servicing components under the ember bed.
2. Disconnect the 4 pin connector
3. remove the two screws
4. secure the new log expansion board
5. connect the 4 pin wires.
6. When reconnecting the logs, ensure they are connected sequentially, beginning with J1.
7. Reassemble the fireplace.

Parts serviced behind the mirrored glass

Preparing for behind the mirrored glass



Heater assembly, on-board controls, overhead LEDs, and speaker are located in the top of the fireplace. The front glass needs to be removed to access these components.

Tools required:

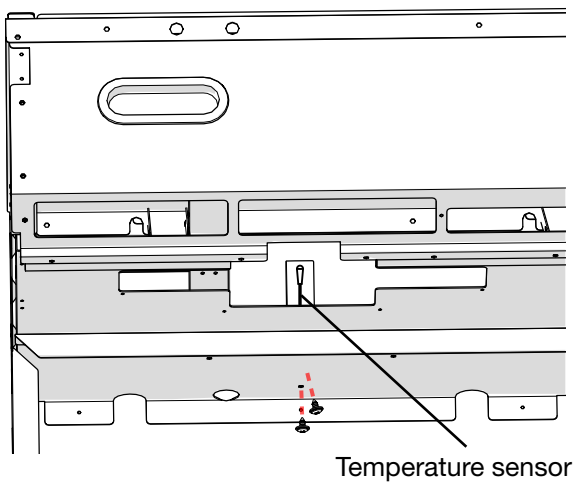
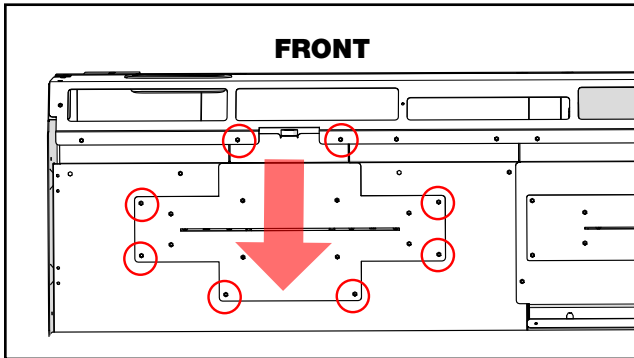
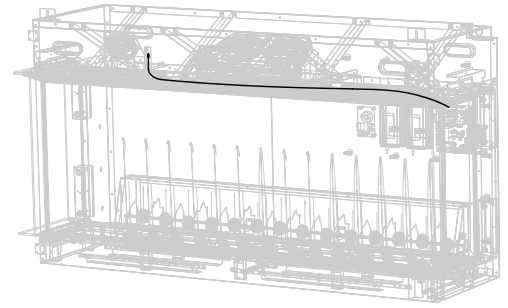
Suction cups (provided with fireplace)
Philips head screwdriver

⚠ WARNING: If the firebox was operating prior to servicing, allow at least 10 minutes for the heating elements to cool off to avoid accidental burning of skin.

⚠ WARNING: Disconnect power before attempting any maintenance to reduce the risk of electric shock or injury to persons.

1. Turn off the power to the fireplace before starting the service.
2. Remove magnetic sill trim. (Figure 1, page 10)
3. Remove the 5 screws that secure the top grill (ULT40 3 screws). (Figure 2, page 10)
4. Attach the suction cups to the front glass and use them to lift the glass up and tilt it to remove it. (Figure 3, page 10) Set it in a safe place for the duration of the service.
5. Using the suction cup, remove the side glass. (Figure 24)
6. Remove the 2 screws on the back glass bracket. (Figure 25)
7. Attach the suction cups to the back glass. Lift up and tilt to remove. (Figure 26) Set it in a safe location for the duration of the service.

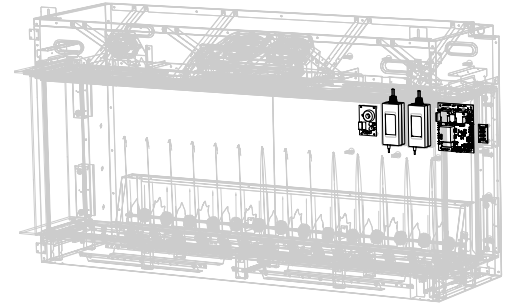
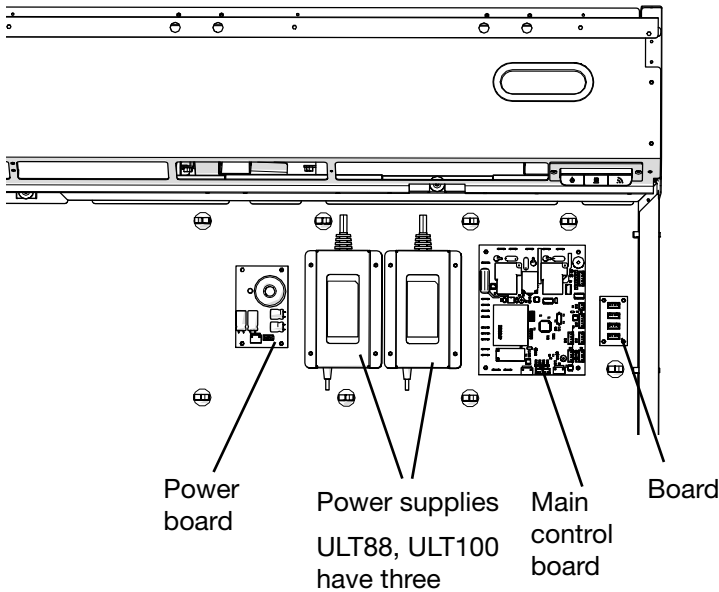
Temperature Sensor Replacement



Tools required:

Suction cup (provided with fireplace)
Philips head screwdriver
Side cutters

1. Turn off the power to the fireplace from the electrical panel and follow steps for service behind the mirrored glass.
2. Remove the eight (8) screws on the upper left service panel.
3. Slide the service panel back to release, and carefully lower it. Disconnect the LED connector and set the service panel aside.
4. Remove the two (2) screws on the temperature sensor bracket.
5. Cut the wire tie to remove the defective temperature sensor from its bracket.
6. Trace the temperature sensor wire to the main control board.
7. Disconnect the temperature sensor and remove it, cutting any restrictive wire ties.
8. Feed the connector from the new temperature sensor toward the main control board, and connect it into the correct location.
9. Secure the new temperature sensor on the temperature sensor bracket using the provided wire tie.
10. Secure the bracket using the two (2) screws previously removed.
11. Secure the left service panel and reassemble the fireplace.
12. Reassemble the fireplace.



Main control board replacement

Power board replacement

Board replacement

Tools required:

Suction cup (provided with fireplace)
Philips head screwdriver
Side cutters

1. Turn off the power to the fireplace from the electrical panel and follow steps for service behind the mirrored glass.
2. It is recommended to take a picture of the board and wires for reference
3. Transfer connections from the defective board to the new board. Cut any wire ties as needed to release bundles of wire to have more working room.
4. Remove screws that secure the defective board.
5. Secure the new board.
6. Use provided wire ties to bundle wires, ensuring that they are held away from where the mirrored glass, otherwise bundles of wires may be visible during operation.
7. Reassemble the fireplace.

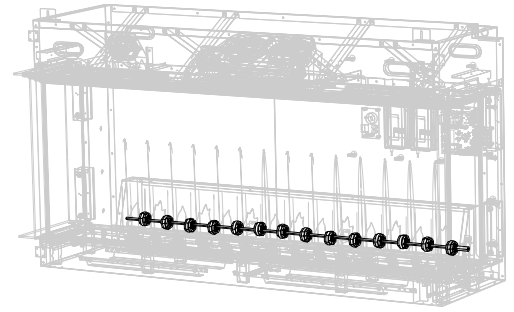
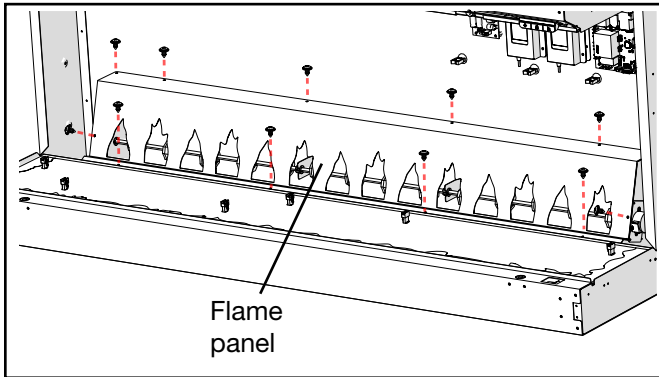
Power supply replacement

Tools required:

Suction cup (provided with fireplace)
Philips head screwdriver
Side cutters

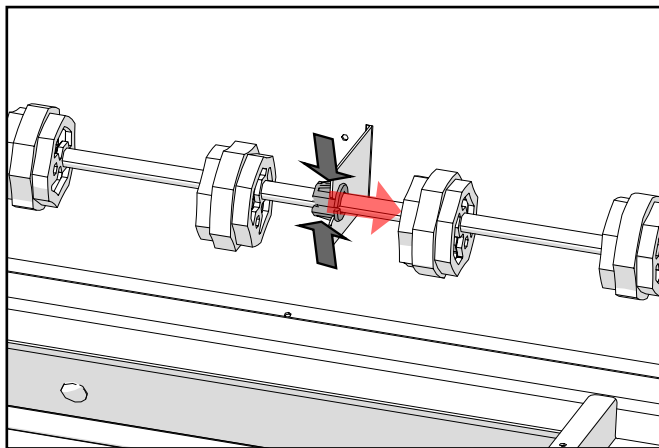
1. Turn off the power to the fireplace from the electrical panel and follow steps for service behind the mirrored glass.
2. Remove the bracket that holds the defective power supply
3. Transfer the connections to the new power supply
4. Secure the new power supply with the bracket.
5. Reassemble the fireplace.

Flicker rod replacement



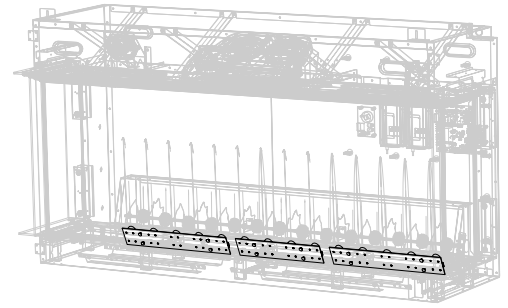
Tools required:

Suction cup (provided with fireplace)
Phillips head screwdriver



1. Turn off the power to the fireplace from the electrical panel and follow steps for service behind the mirrored glass.
2. Remove the flame panel.
Note: On larger models there are multiple segments.
3. Remove the two screws on the bracket (A)
4. Remove the two screws on the next bracket (B)
5. Pull the old flicker rod off the flicker motor
6. Remove the bushings from the bracket by pinching them and pushing them toward the right. Remove the old flicker rod.
7. Place the new flicker rod, starting by inserting the side with the “mushroom stud” on the left side. Put all the bushings in on the brackets.
8. Reattach the flicker motor to the flicker rod.
9. Reinstall the flicker motor.
10. Reassemble the fireplace.

Flame LED replacement

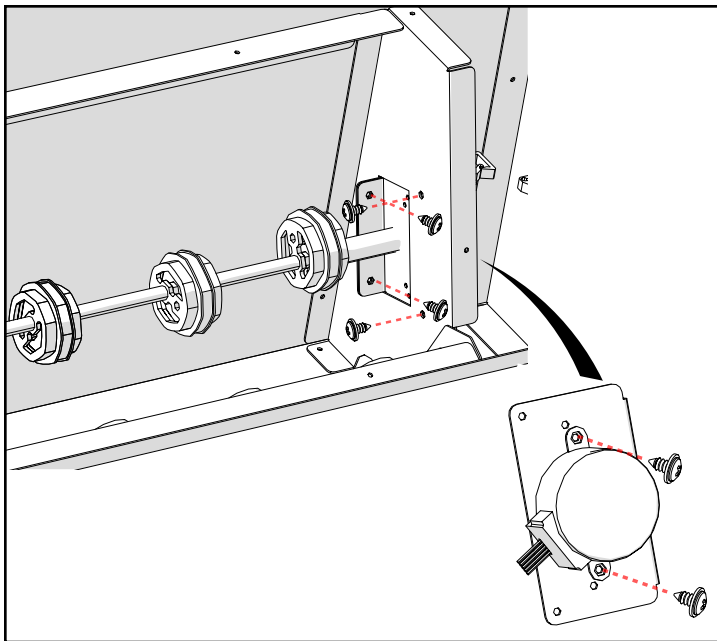
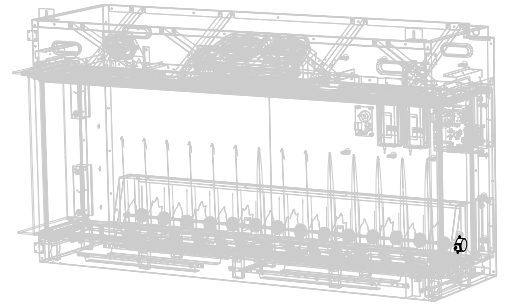
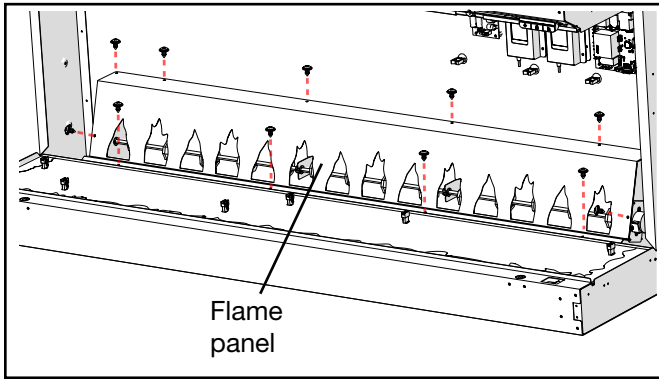


Tools required:

Suction cup (provided with fireplace)
Philips head screwdriver

1. Turn off the power to the fireplace from the electrical panel and follow steps for service behind the mirrored glass.
2. Remove the flame panel.
Note: On larger models there are multiple segments.
3. On the flame LED bracket, remove the 4 screws (2 on each side) and the 3 screws at bottom.
4. Pinch standoffs while carefully pulling the LED strip away to remove it. Make note of which side of the LED says IN and OUT.
5. Secure the new LED strip on the standoffs, ensuring that the IN and OUT are oriented correctly and connect the LED strip.
6. Secure the flame LED bracket.
7. Reinstall the flame panel(s).
8. Reassemble the fireplace.

Flicker motor replacement






Tools required:

Suction cup (provided with fireplace)
Philips head screwdriver

1. Turn off the power to the fireplace from the electrical panel and follow steps for service behind the mirrored glass.
2. Remove the flame panel.
Note: On larger models there are multiple segments. Only the right side needs to be removed.
3. Carefully pull the flicker rod off the flicker motor.
4. Remove the four screws on the flicker motor bracket.
5. Remove the two screws to remove the defective flicker motor and replace it with the new flicker motor.
6. Trace the wiring from the defective flicker motor to disconnect it and connect the new flicker motor in its place.
7. Use provided wire ties to bundle wires so that they are not obstructive, and they remain away from where the mirror will be (otherwise they will be visible during operation).
8. Secure the flicker motor bracket.
9. Reinstall the flame panel.
10. Reassemble the fireplace.

Troubleshooting

Problem	Cause	Solution
	Defective temperature sensor	
	Defective power board	
	Defective power supply	
No log, ember bed, or overhead lights (flame works)	Defective power board	Replace power board
General		
Circuit breaker trips or fuse blows when unit is turned on	Improper circuit current rating	Install unit on a dedicated minimum 15 amp circuit.
	Short?	
	Defective part?	
Unit does not turn on (using on-board controls)	Power switch in off position	Ensure the rocker switch is in the ON position.
	No power to unit	Ensure main disconnect panel and wall switch (if applicable) are on Ensure unit is wired correctly
	Defective on-board controls	Replace on-board controls
	Defective main control board	Replace main control board
Remote control not working	Batteries installed incorrectly	
	Batteries are dead	Replace remote control batteries
	Remote control out of range	
	Remote control not synced	Refer the operation section for instructions.
	Defective remote control	Replace remote control
	Defective on-board controls	Replace on-board controls
Flame sound is not working	Flame sound not on/not loud enough	Press  and press + repeatedly
	Defective speaker	Replace speaker
	Defective on-board controls	Replace on-board controls
Noise		
Grinding or excessive noise with the heater off	Defective flicker motor	Replace flicker motor
	Flicker rod out of position	Remove mirrored glass and inspect
Excessive noise with the heater on (coming from top center)	Dirty heater assembly	Ensure that exterior louvers are free of dirt/dust. Clean heater assembly with compressed air.
	Defective heater assembly	Replace heater assembly
Flame sound is buzzing	Defective speaker	Replace speaker
Heat		
Heat and fan turn off after a few minutes of operation	Dirty heater assembly/obstructed	Ensure nothing obstructs the heater, the exterior louvers are free of dirt/dust. Clean heater assembly with compressed air.
	Defective heater assembly	Replace heater assembly
No heat, fan works	Fan only setting - Indicated by blue LED on remote control	Normal operation - change setting to turn on heat
	Cool down	Normal operation
	Defective heater assembly	Replace heater assembly
Heater does not turn on and  is lit on the on-board controls	Set temperature too low	Heater will not work beyond 30°C/86°F
	Defective heater assembly	Replace heater assembly
Heater does not turn on and  flashes three times on the on-board controls	Heater disabled	Press and hold  on the on-board controls for 10 seconds to disable or enable the heater.
	Heater permanently disabled	If installation with heat is desired, reinstall jumper on the main board if available or replace it with a new main board or jumper.

Heater and fan don't turn on - check if heat light stays on	Defective heater assembly	Replace heater assembly
	Defective main control board	Replace main control board
Flame, lights, and logs		
***If one of any of these features are not working properly, verify that the other features are working properly in order to troubleshoot the cause of failure		
Flame is frozen	Defective flicker motor	Replace flicker motor
	Defective main control board	Replace main control board
No flame	Dusk mode (flame theme 8) is active	Use the remote control or mobile app to select a different flame theme.
	Defective flame LED strip(s)	Replace LED strip(s)
	ULT40, ULT50, ULT60 only - defective power supply	Replace power supply (right side - connected directly to main control board)
	ULT74, ULT88, ULT100 only - Defective flame board	Replace flame board
	Defective main control board	Replace main control board
A portion of the flame is missing	Defective flame LED strip(s)	Replace LED strip(s)
	ULT74, ULT88, ULT100 only - Defective flame board	Replace flame board and power supply (right side - connected directly to main control board)
	ULT74, ULT88, ULT100 only - defective power supply	
Overhead lights not working	Defective LED strip(s)	Replace LED strip(s)
	Defective splitter board	Replace splitter board
A portion of overhead LEDs is missing	Defective LED strip(s)	Replace LED strip(s)
Ember bed lights not working	Defective LED strip(s)	Replace LED strip(s)
	Defective splitter board	Replace splitter board
A portion of ember bed lights not working	Defective LED strip(s)	Replace LED strip(s)
Ember bed and logs are not lit	Midnight mode (theme 7) is active	Refer to operation section.
No logs are lit (flame and ember bed are on)	Log furthest to the left is defective	Plug a different log into the connector furthest to the left. If it lights up, replace the defective log.
	Defective log expansion board	Replace log expansion board
	Defective main control board	Replace main control board
Some logs are not lit	Defective log	Identify which log is defective by plugging the unlit logs into the connector furthest to the left.
	Logs not plugged sequentially	If all logs work in connector furthest to the left, ensure all wires are plugged into the log expansion board.
	Defective log wire harness	Replace log wire harness
	Defective log expansion board	Replace log expansion board
Ember bed and overhead lights not working	Defective splitter board	Replace splitter board and/or main control board
	Defective main control board	
Logs, ember bed, and overhead lights not working (all or a portion of the flame may be missing as well)	Defective power board	Replace power board, power supply (the one connected to the power board), and/or main control board.
	Defective power supply	
	Defective main control board	

Error Code is displayed (On the Flame Connect app only)	Err 1	Temperature cut-out is activated	Reset breaker and wait 5 minutes before turning unit back on it. If error persists, see Service Manual.
	Err 12	Ambient temperature is above 45° C (113° F)	No action required.
	Err 13	Ambient temperature is below 5° C (41° F)	No action required.
	Err 16	NTC not detected	See service manual.

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