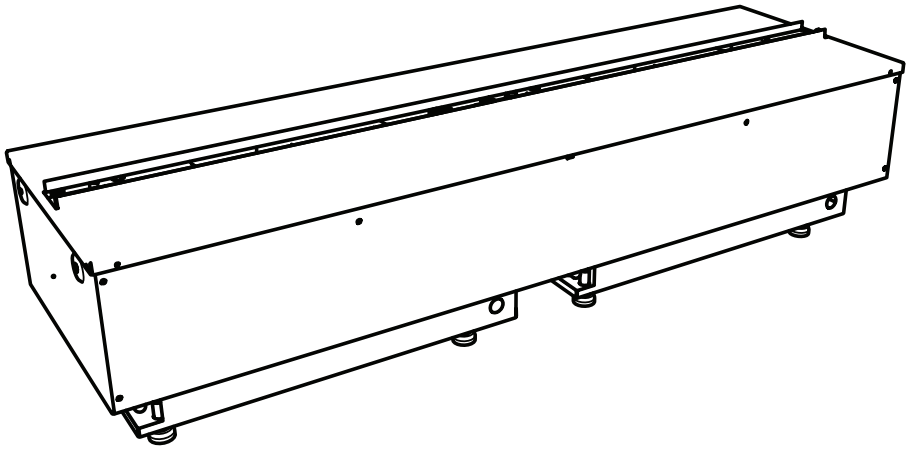
Dimplex®

Service Manual

Model	Part Number
CDFI1000P	6909660100
CDFI500P	6909660200
CDFI1000-PRO	6909660300
CDFI500-PRO	6909660400



IMPORTANT SAFETY INFORMATION: Always read this manual first before attempting to service this cassette. For your safety, always comply with all warnings and safety instructions contained in this manual to prevent personal injury or property damage.

7400880000R05

Table of Contents

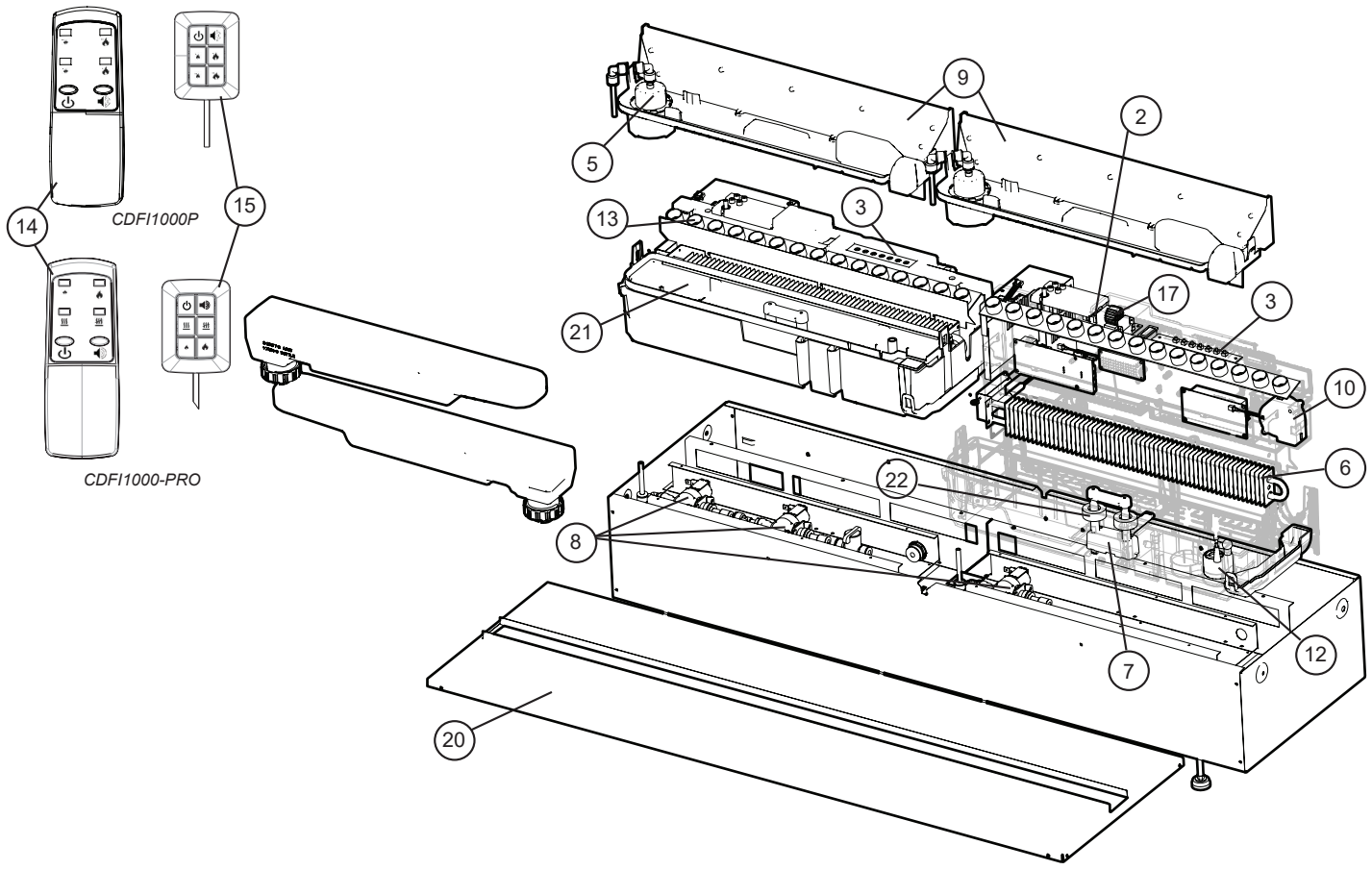
Always use a qualified technician or service agency to repair this cassette.

! 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.

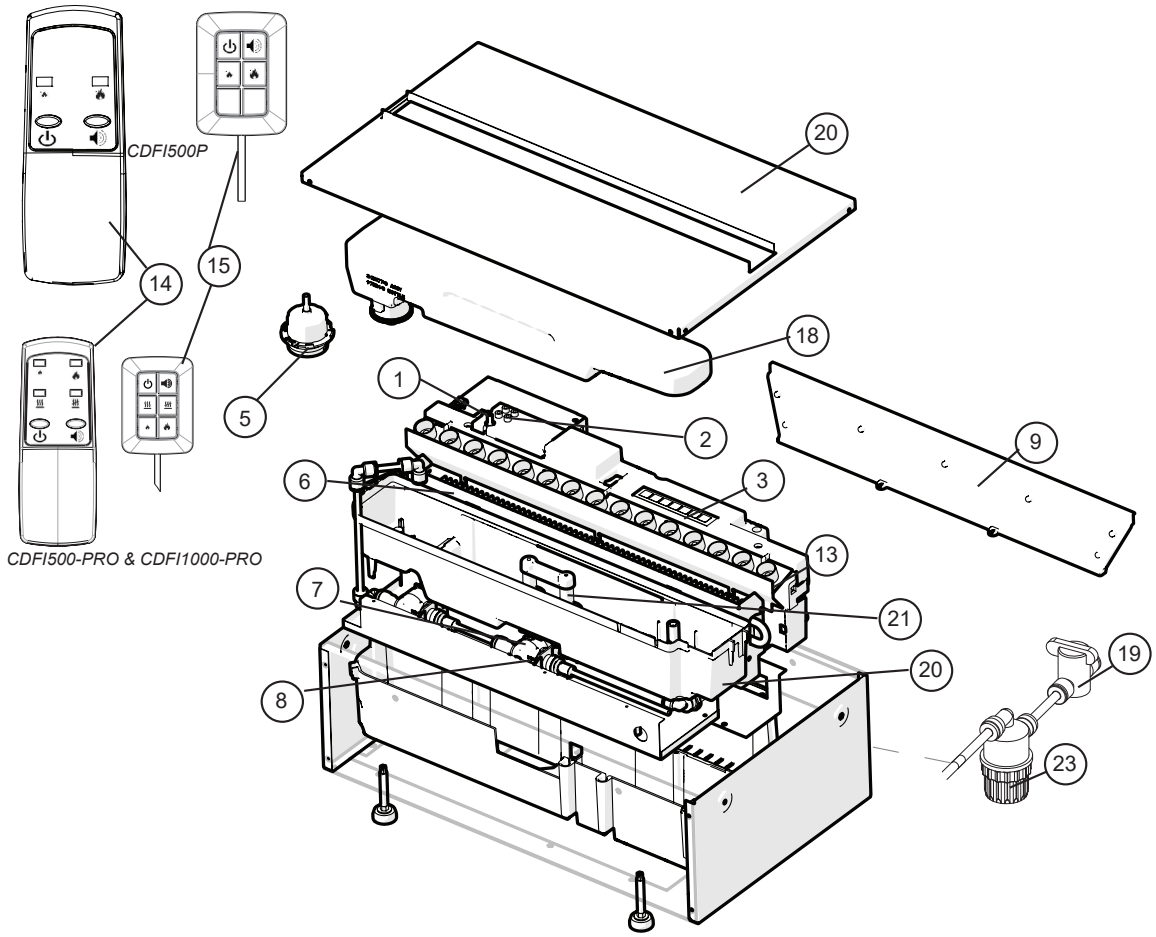
Exploded Parts Diagram - CDFI1000



Replacement Parts List - CDFI1000P, CDFI10000-PRO

1. Main Control Board (2)
   - CDFI1000P (all MODs) 9601270200RP
   - CDFI1000-PRO (MOD 0-D) 9601270200RP
   - MOD E (w/o LED Driver) 9601270400RP
   - LED Driver (MOD C+) 9601270300RP
2. Terminal Block (1) 9601260100RP
3. Switch Board (2) 9601290100RP
4. Power Supply (2) 9601300100RP
5. Fill Cap Assembly (2) 9601230100RP
6. Heating Element (2) 9601240100RP
7. Level Sensor Assembly (2) 9601320100RP
8. Solenoid Valve (3) 9601330100RP
9. Top Cover Assembly (2) 9601220100RP
10. Fan Assembly (2) 9601310100RP
11. Fan Filter (2) 8600300100RP
12. Transducer (2) 9601210100RP
13. LED Assembly MOD 0-B (Orange) (2) .9601250100RP
    - PRO MOD C (Yellow) (2) 9601250200RP
14. Remote Control
    - CDFI1000P 9601110100RP
    - CDFI1000-PRO 9601110300RP
15. Tethered Controller / Receiver
    - CDFI1000P 9601120100RP
    - CDFI1000-PRO 9601120300RP
    - MOD E 9601120400RP
16. Fused Wire Harness 9601340100RP
17. Electronic Choke (2) 9601380100RP
18. Removable Refill Container with Cap . .9601350100RP
19. Ball Valve (1) 9601360100RP
20. Top Plate
    - CDFI1000P 9601070100RP
    - CDFI1000-PRO 9601070300RP
21. Sump (2) 9601200100RP
22. Floats and stopper (2) 9602550100RP
23. Mesh filter (1) 9601370100RP
24. Red lock clips (package of 5) 9602490100RP
25. Tether Wire Harness 9601080100RP
26. Flame Baffles (2) 9601460100RP

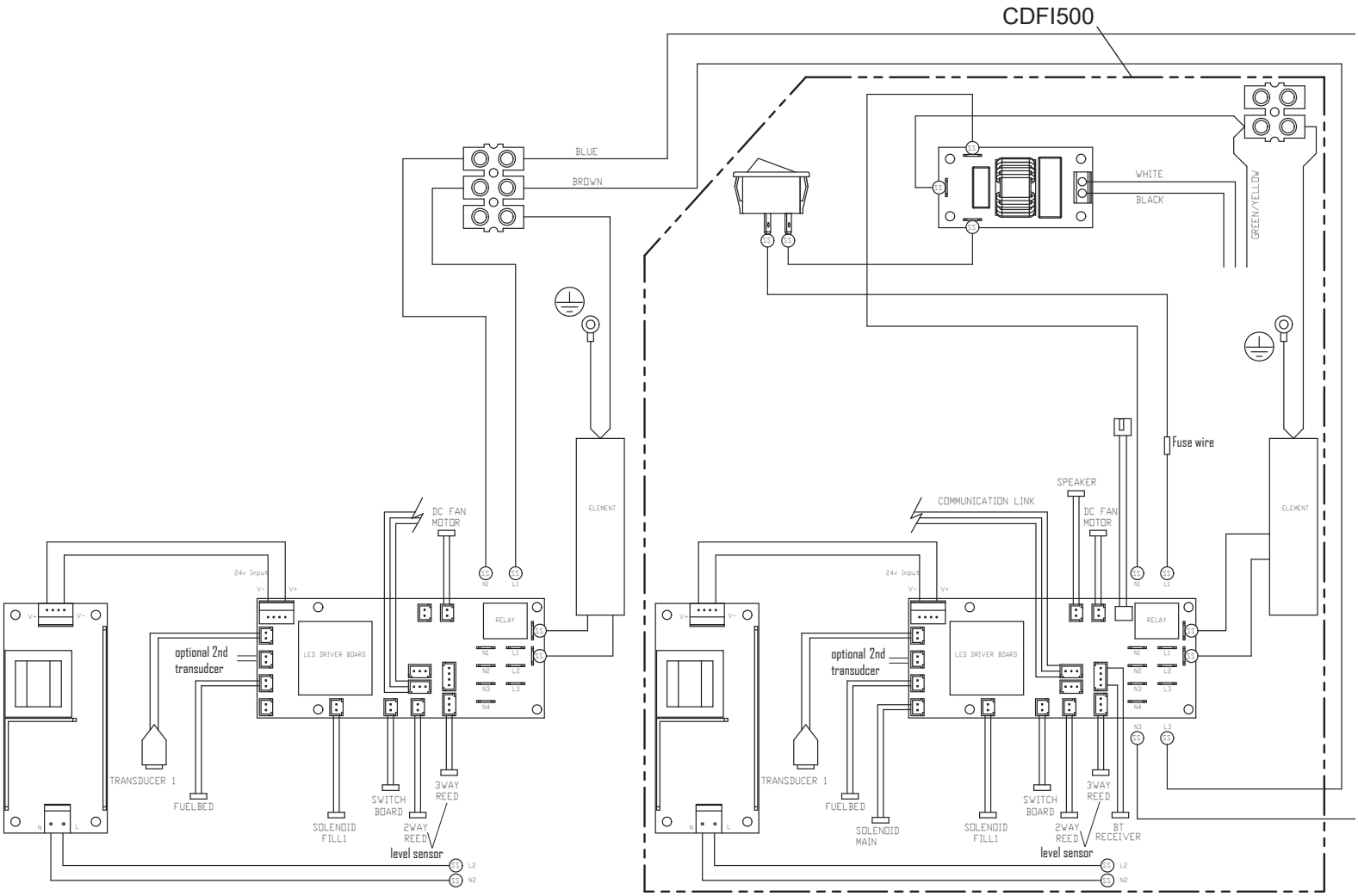
Exploded Parts Diagram - CDFI500



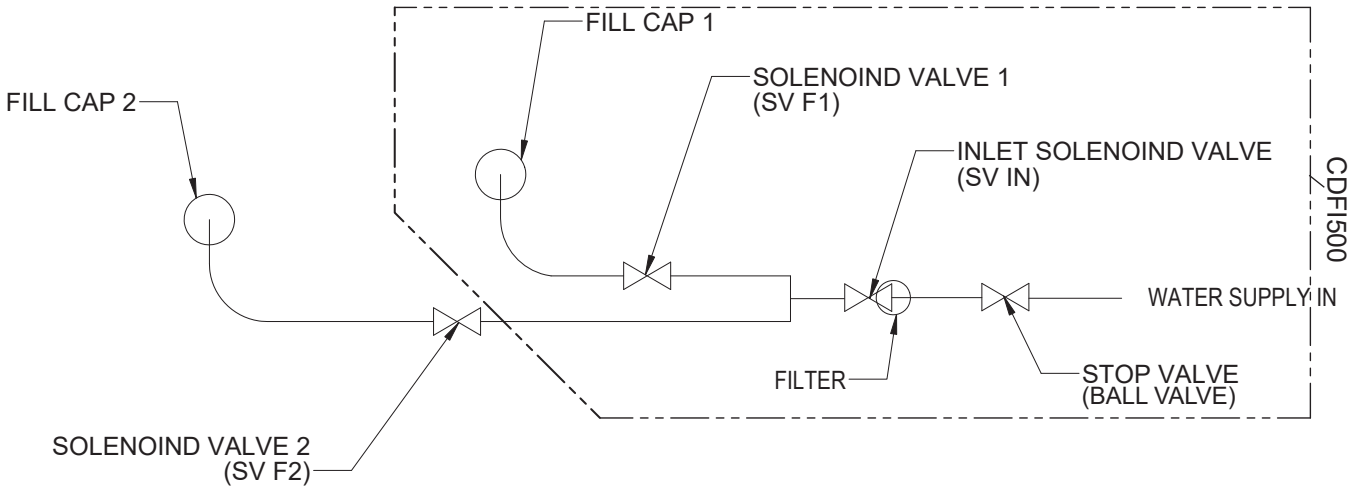
Replacement Parts List - CDFI500P, CDFI500-PRO

1. Main Control Board
   - CDFI500P (all MODs) 9601270200RP
   - CDFI500-PRO (MOD 0-D) 9601270200RP
   - MOD E (w/o LED Driver) 9601270400RP
   - LED Driver (MOD C+) 9601270300RP
2. Terminal Block. 9601260100RP
3. Switch Board. 9601290100RP
4. Power Supply 9601300100RP
5. Fill Cap Assembly 9601230100RP
6. Heating Element 9601240100RP
7. Level Sensor Assembly. 9601320100RP
8. Solenoid Valve (2). 9601330100RP
9. Top Cover Assembly 9601220100RP
10. Fan Assembly 9601310100RP
11. Fan Filter. 8600300100RP
12. Transducer 9601210100RP
13. LED Assembly MOD 0-B (Orange) 9601250100RP
    - PRO MOD C (Yellow) 9601250200RP
14. Remote Control
    - CDFI500P 9601110200RP
    - CDFI500-PRO 9601110300RP
15. Tethered Controller / Receiver
    - CDFI500P 9601120200RP
    - CDFI500-PRO 9601120300RP
    - MOD E 9601120400RP
16. Fused Wire harness 9601340100RP
17. Electronic Choke. 9601380100RP
18. Removable Refill Container with Cap . .9601350100RP
19. Ball Valve 9601360100RP
20. Top Plate
    - CDFI500P 9601070200RP
    - CDFI500-PRO 9601070400RP
21. Sump. 9601200100RP
22. Floats and stopper 9602550100RP
23. Mesh Filter 9601370100RP
24. Red lock clips (package of 5) 9602490100RP
25. Tether Wire Harness 9601080100RP
26. Flame Baffles 9601460100RP

Wiring Diagram



Water Flow Diagram



Switch Board Replacement

Tools Required: Phillips head screwdriver

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

NOTE: Ensure that all of the components that contain water have been emptied and source water has been turned off before performing any maintenance.

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. On the side the replacement is required, remove the securing screws and metal wire cover.
3. Remove the 4 screws and the electronics cover from the unit. (Figure 4)

NOTE: Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

4. Locate the switch board to be replaced.
5. Gently lift the switch board off of the mounting stands.
6. Disconnect the wire connection from the back of the board.
7. Attach the wire connection to the new board and place on the mounting stands.
8. Re-assemble the remainder of the cassette in reverse order from the instructions above.

Terminal Block Replacement

Tools Required: Phillips head screwdriver

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

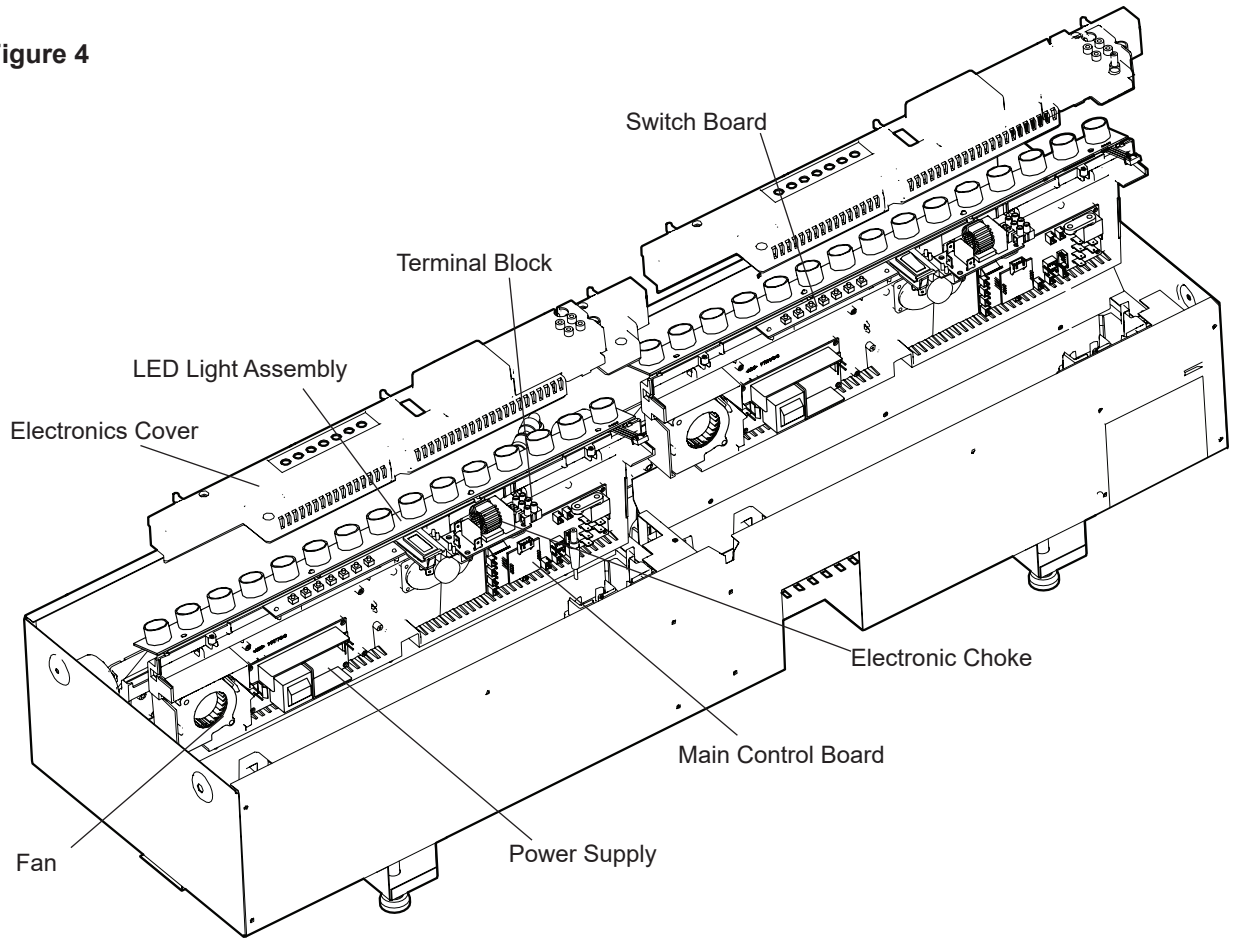
NOTE: Ensure that all of the components that contain water have been emptied and source water has been turned off before performing any maintenance.

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. On the secondary side remove the securing screws and metal wire cover.
3. Remove the 4 screws and the electronics cover from the unit. (Figure 4)

NOTE: Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

4. Locate the terminal block to be replaced.
5. Disconnect the wire connections from the original block and install it on the new block.
6. Replace the terminal block in the original position - the terminal block is located so that it sits on the moulded pins on the surface below.
7. Re-assemble the remainder of the cassette in reverse order from the instructions above.

Figure 4



Fan Assembly Replacement

Tools Required: Phillips head screwdriver

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

! **NOTE:** Ensure that all of the components that contain water have been emptied and source water has been turned off before performing any maintenance.

Primary Side

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. Remove the securing screws and metal wire cover at the end of both of the electronics covers.
3. Remove the 4 screws and both of the electronics covers from the unit. (Figure 4)

! **NOTE:** Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

4. Holding the assembly at either end of the LED light strip, on the primary end, gently lift the electronics assembly out of the unit (Figure 4).

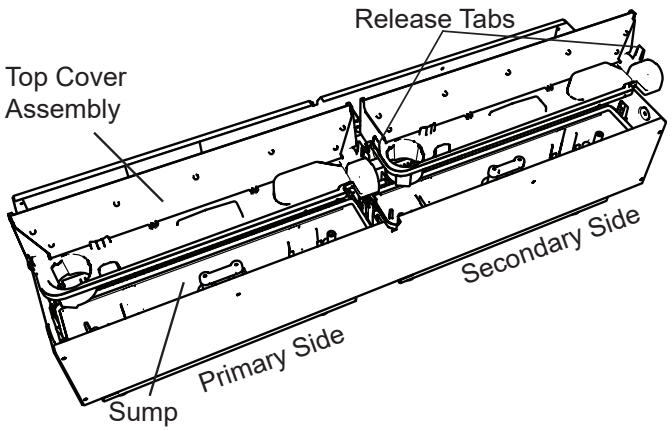
! **NOTE:** There are several wires that run between the two sides, these wires will need to be gently removed through the opening on the secondary side to allow the primary electronics assembly to be lifted out.

5. Locate the fan assembly.
6. Trace the control wires to the main control board and disconnect.
7. Replace with wire from new fan.
8. Run wiring back to location for fan, and install the fan.
9. Reinsert the electronics assembly.

⚠ **CAUTION:** Ensure that the switchboard and terminal block have not moved from their original locations and all wires are contained under the cover before reassembly.

10. Re-assemble the remainder of the cassette in reverse order from the instructions above.

Figure 5



Secondary Side

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. Remove the 4 screws and the electronics cover from the unit. (Figure 4)

! **NOTE:** Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

3. Holding the assembly at either end of the LED light strip, on the primary end, gently lift the electronics assembly out of the unit (Figure 4).
4. Locate the fan assembly.
5. Trace the control wires to the main control board and disconnect.
6. Replace with wire from new fan.
7. Run wiring back to location for fan, and install the fan.
8. Reinsert the electronics assembly.

⚠ **CAUTION:** Ensure that the switchboard and terminal block have not moved from their original locations and all wires are contained under the cover before reassembly.

9. Re-assemble the remainder of the cassette in reverse order from the instructions above.

Fused Wire harness Replacement

Tools Required: Phillips head screwdriver

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

! **NOTE:** Ensure that all of the components that contain water have been emptied and source water has been turned off before performing any maintenance.

Primary Side

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. Remove the securing screws and metal wire cover at the end of both of the electronics covers.
3. Remove the 4 screws and both of the electronics covers from the unit. (Figure 4)

! **NOTE:** Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

4. Remove the cable clamp, to allow for the assembly to be lifted out to better access the components.
5. Holding the assembly at either end of the LED light strip, on the primary end, gently lift the electronics assembly out of the unit (Figure 4).

! **NOTE:** There are several wires that run between the two sides, these wires will need to be gently removed through the opening on the secondary side to allow the primary electronics assembly to be lifted out.

6. Locate the fused wire harness (brown wire from main switch to main control board with in line fuse).
7. Replace current wire harness with new wire harness.

NOTE: A flat head screwdriver can be used to gently pry between the end of the connector and the switch to release the wires.

8. Replace all of the wiring to their original locations and reinsert the electronics assembly.

CAUTION: Ensure that the switchboard and terminal block have not moved from their original locations and all wires are contained under the cover before reassembly.

9. Re-assemble the remainder of the cassette in reverse order from the instructions above.

Main Control Board Replacement

Tools Required: Phillips head screwdriver

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

NOTE: Ensure that all of the components that contain water have been emptied and source water has been turned off before performing any maintenance.

Primary Side

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. Remove the securing screws and metal wire cover at the end of both of the electronics covers.
3. Remove the 4 screws and both of the electronics covers from the unit. (Figure 4)

NOTE: Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

4. Remove the cable clamp, to allow for the assembly to be lifted out to better access the components.
5. Holding the assembly at either end of the LED light strip, on the primary end, gently lift the electronics assembly out of the unit (Figure 4).

NOTE: There are several wires that run between the two sides, these wires will need to be gently removed through the opening on the secondary side to allow the primary electronics assembly to be lifted out.

6. Locate the main control board.
7. Transfer the wires from the old board to the new board.

NOTE: A flat head screwdriver can be used to gently pry between the end of the connector and the switch to release the wires.
MOD E-F: Remove the LED driver board from the old main control board and connect it to the new main control board.

8. Remove the old board from the unit and replace with the new board.
9. Replace all of the wiring to their original locations and reinsert the electronics assembly.

CAUTION: Ensure that the switchboard and terminal block have not moved from their original locations and all wires are contained under the cover before reassembly.

10. Re-assemble the remainder of the cassette in reverse order from the instructions above.

Secondary Side

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. Remove the 4 screws and the electronics cover from the unit. (Figure 4)

NOTE: Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

3. Holding the assembly at either end of the LED light strip, on the primary end, gently lift the electronics assembly out of the unit (Figure 4).
4. Locate the main control board.
5. Transfer the wires from the old board to the new board.

NOTE: A flat head screwdriver can be used to gently pry between the end of the connector and the switch to release the wires.
CDFI-PRO MOD E+: Remove the LED driver board from the old main control board and connect it to the new main control board.

6. Remove the old board from the unit and replace with the new board.
7. Replace all of the wiring to their original locations and reinsert the electronics assembly.

CAUTION: Ensure that the switchboard and terminal block have not moved from their original locations and all wires are contained under the cover before reassembly.

8. Re-assemble the remainder of the cassette in reverse order from the instructions above.

LED Driver Board Replacement

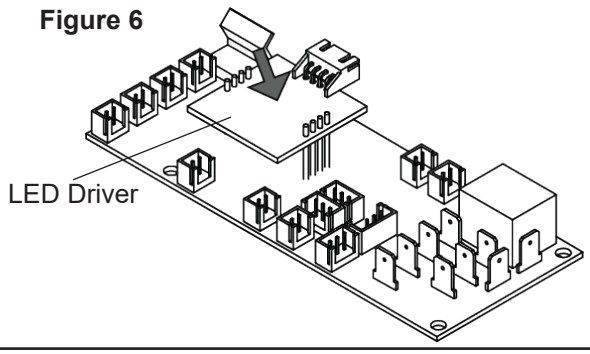
Tools Required: Phillips head screwdriver

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

NOTE: Ensure that all of the components that contain water have been emptied and source water has been turned off before performing any maintenance.

1. Follow the steps to access the main board on both sides of the cassette.
2. Locate and disconnect the the old LED driver board (Figure 6)
3. Plug in the new LED driver board.
4. Re-assemble the remainder of the cassette in reverse order from the instructions given in the “Main Control Board Replacement” instructions.

Figure 6



Power Supply Replacement

Tools Required: Phillips head screwdriver

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

! **NOTE:** Ensure that all of the components that contain water have been emptied and source water has been turned off before performing any maintenance.

Primary Side

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. Remove the securing screws and metal wire cover at the end of both of the electronics covers.
3. Remove the 4 screws and both of the electronics covers from the unit. (Figure 4)

! **NOTE:** Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

4. Remove the cable clamp, to allow for the assembly to be lifted out to better access the components.
5. Holding the assembly at either end of the LED light strip, on the primary end, gently lift the electronics assembly out of the unit (Figure 4).

! **NOTE:** There are several wires that run between the two sides, these wires will need to be gently removed through the opening on the secondary side to allow the primary electronics assembly to be lifted out.

6. Locate the power supply assembly.
7. Transfer the wires from the old board to the new board.

! **NOTE:** A flat head screwdriver can be used to gently pry between the end of the connector and the switch to release the wires.

8. Remove the old board from the unit and replace with the new board.
9. Replace all of the wiring to their original locations and reinsert the electronics assembly.

⚠ **CAUTION:** Ensure that the switchboard and terminal block have not moved from their original locations and all wires are contained under the cover before reassembly.

10. Re-assemble the remainder of the cassette in reverse order from the instructions above.

Secondary Side

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. Remove the 4 screws and the electronics cover from the unit. (Figure 4)

! **NOTE:** Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

3. Holding the assembly at either end of the LED light strip, on the primary end, gently lift the electronics assembly out of the unit (Figure 4).
4. Locate the power supply assembly.
5. Transfer the wires from the old board to the new board.

! **NOTE:** A flat head screwdriver can be used to gently pry between the end of the connector and the switch to release the wires.

6. Remove the old board from the unit and replace with the new board.
7. Replace all of the wiring to their original locations and reinsert the electronics assembly.

⚠ **CAUTION:** Ensure that the switchboard and terminal block have not moved from their original locations and all wires are contained under the cover before reassembly.

8. Re-assemble the remainder of the cassette in reverse order from the instructions above.

LED Light Assembly Replacement

Tools Required: Phillips head screwdriver

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

! **NOTE:** Ensure that all of the components that contain water have been emptied and source water has been turned off before performing any maintenance.

Primary Side

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. Remove the securing screws and metal wire cover at the end of both of the electronics covers.
3. Remove the 4 screws and both of the electronics covers from the unit. (Figure 4)

! **NOTE:** Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

4. Remove the cable clamp, to allow for the assembly to be lifted out to better access the components.
5. Holding the assembly at either end of the LED light strip, on the primary end, gently lift the electronics assembly out of the unit (Figure 4).

! **NOTE:** There are several wires that run between the two sides, these wires will need to be gently removed through the opening on the secondary side to allow the primary electronics assembly to be lifted out.

6. Gently lift the LED light assembly off of the standoffs.
7. Trace the control wire back to the main control board and replace with the wire from the new assembly.
8. Install the new LED light assembly, ensuring that all of the wires are installed in the same location as the previous one.
9. Replace all of the wiring to their original locations and reinsert the electronics assembly.

⚠ **CAUTION:** Ensure that the switchboard and terminal block have not moved from their original locations and all wires are contained under the cover before reassembly.

10. Re-assemble the remainder of the cassette in reverse order from the instructions above.

Secondary Side

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. Remove the 4 screws and the electronics cover from the unit. (Figure 4)

! **NOTE:** Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

3. Holding the assembly at either end of the LED light strip, on the primary end, gently lift the electronics assembly out of the unit (Figure 4).
4. Gently lift the LED light assembly off of the standoffs.
5. Trace the control wire back to the main control board and replace with the wire from the new assembly.
6. Install the new LED light assembly, ensuring that all of the wires are installed in the same location as the previous one.
7. Replace all of the wiring to their original locations and reinsert the electronics assembly.

⚠ **CAUTION:** Ensure that the switchboard and terminal block have not moved from their original locations and all wires are contained under the cover before reassembly.

8. Re-assemble the remainder of the cassette in reverse order from the instructions above.

Heating Element Replacement

Tools Required: Phillips head screwdriver

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

! **NOTE:** Ensure that all of the components that contain water have been emptied and source water has been turned off before performing any maintenance.

Primary Side

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. Remove the securing screws and metal wire cover at the end of both of the electronics covers.
3. Remove the 4 screws and both of the electronics covers from the unit. (Figure 4)

! **NOTE:** Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

4. Remove the cable clamp, to allow for the assembly to be lifted out to better access the components.
5. Holding the assembly at either end of the LED light strip, on the primary end, gently lift the electronics assembly out of the unit (Figure 4).

! **NOTE:** There are several wires that run between the two sides, these wires will need to be gently removed through the opening on the secondary side to allow the primary electronics assembly to be lifted out.

6. Locate the 2 screws that secure the element assembly (element and brackets) to the unit and remove.
7. Lift the element assembly out of the unit.
8. Disconnect the element from the main control board.
9. Remove the element from the mounting bracket and install the new element.
10. Attach the new element to the main control board.
11. Install and secure the element assembly into the unit.
12. Replace all of the wiring to their original locations and reinsert the electronics assembly.

⚠ **CAUTION:** Ensure that the switchboard and terminal block have not moved from their original locations and all wires are contained under the cover before reassembly.

13. Re-assemble the remainder of the cassette in reverse order from the instructions above.

Secondary Side

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. Remove the 4 screws and the electronics cover from the unit. (Figure 4)

! **NOTE:** Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

3. Holding the assembly at either end of the LED light strip, on the primary end, gently lift the electronics assembly out of the unit (Figure 4).
4. Locate the 2 screws that secure the element assembly (element and brackets) to the unit and remove.
5. Lift the element assembly out of the unit.
6. Disconnect the element from the main control board.
7. Remove the element from the mounting bracket and install the new element.
8. Attach the new element to the main control board.
9. Install and secure the element assembly into the unit.
10. Replace all of the wiring to their original locations and reinsert the electronics assembly.

⚠ **CAUTION:** Ensure that the switchboard and terminal block have not moved from their original locations and all wires are contained under the cover before reassembly.

11. Re-assemble the remainder of the cassette in reverse order from the instructions above.

Level Sensor Assembly Replacement

Tools Required: Phillips head screwdriver

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

! **NOTE:** Ensure that all of the components that contain water have been emptied and source water has been turned off before performing any maintenance.

Primary Side

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. Remove the securing screws and metal wire cover at the end of both of the electronics covers.
3. Remove the 4 screws and both of the electronics covers from the unit. (Figure 4)

! **NOTE:** Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

4. Remove the cable clamp, to allow for the assembly to be lifted out to better access the components.
5. Holding the assembly at either end of the LED light strip, on the primary end, gently lift the electronics assembly out of the unit (Figure 4).

! **NOTE:** There are several wires that run between the two sides, these wires will need to be gently removed through the opening on the secondary side to allow the primary electronics assembly to be lifted out.

6. Remove the refill bottle, top cover, transducer and sump.
7. Locate the level sensor assembly. (Figure 7)
8. Trace and disconnect the control wire for the level sensor assembly back to the main control board.
9. Depress the two tabs along the one side of the assembly and slide the level sensor and wire out.
10. Run new wire through to main control board.
11. Install new level sensor.
12. Reconnect the control wire.

⚠ **CAUTION:** Ensure that the switchboard and terminal block have not moved from their original locations and all wires are contained under the cover before reassembly.

13. Re-assemble the remainder of the cassette in reverse order from the instructions above.

Secondary Side

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. Remove the 4 screws and the electronics cover from the unit. (Figure 4)

! **NOTE:** Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

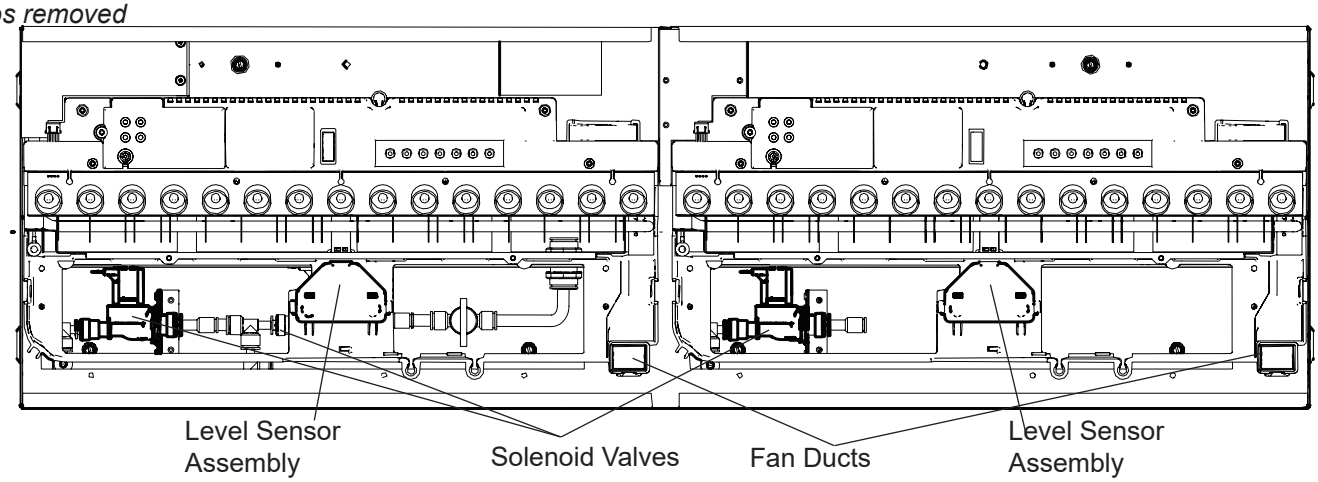
3. Holding the assembly at either end of the LED light strip, on the primary end, gently lift the electronics assembly out of the unit (Figure 4).
4. Remove the refill bottle, top cover, transducer and sump.
5. Locate the level sensor assembly. (Figure 7)
6. Trace and disconnect the control wire for the level sensor assembly back to the main control board.
7. Depress the two tabs along the one side of the assembly and slide the level sensor and wire out.
8. Run new wire through to main control board.
9. Install new level sensor.
10. Reconnect the control wire.

⚠ **CAUTION:** Ensure that the switchboard and terminal block have not moved from their original locations and all wires are contained under the cover before reassembly.

11. Re-assemble the remainder of the cassette in reverse order from the instructions above.

Figure 7

Sumps removed



Solenoid Valve Replacement

Tools Required: Short Phillips head screwdriver

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

! **NOTE:** Ensure that all of the components that contain water have been emptied and source water has been turned off before performing any maintenance.

Primary Side

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. Remove the securing screws and metal wire cover at the end of both of the electronics covers.
3. Remove the 4 screws and both of the electronics covers from the unit. (Figure 4)

! **NOTE:** Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

4. Remove the cable clamp, to allow for the assembly to be lifted out to better access the components.
5. Holding the assembly at either end of the LED light strip, on the primary end, gently lift the electronics assembly out of the unit (Figure 4).

! **NOTE:** There are several wires that run between the two sides, these wires will need to be gently removed through the opening on the secondary side to allow the primary electronics assembly to be lifted out.

6. Remove the refill bottle, top cover, transducer and sump.
7. Locate the solenoid valve to be replaced. (Figure 7)
8. Trace and disconnect the control wire for the solenoid back to the main control board.
9. Remove the two screws from the front face of the bracket to release the valve.
10. Disconnect the plumbing connections and remove the solenoid valve.
11. Run new wire through to main control board.
12. Install new solenoid valve.
13. Reconnect the control wire.

⚠ **CAUTION:** Ensure that the switchboard and terminal block have not moved from their original locations and all wires are contained under the cover before reassembly.

14. Re-assemble the remainder of the cassette in reverse order from the instructions above.

Secondary Side

1. Disconnect and remove the media tray or log set from the unit and put them in a safe place.
2. Remove the 4 screws and the electronics cover from the unit. (Figure 4)

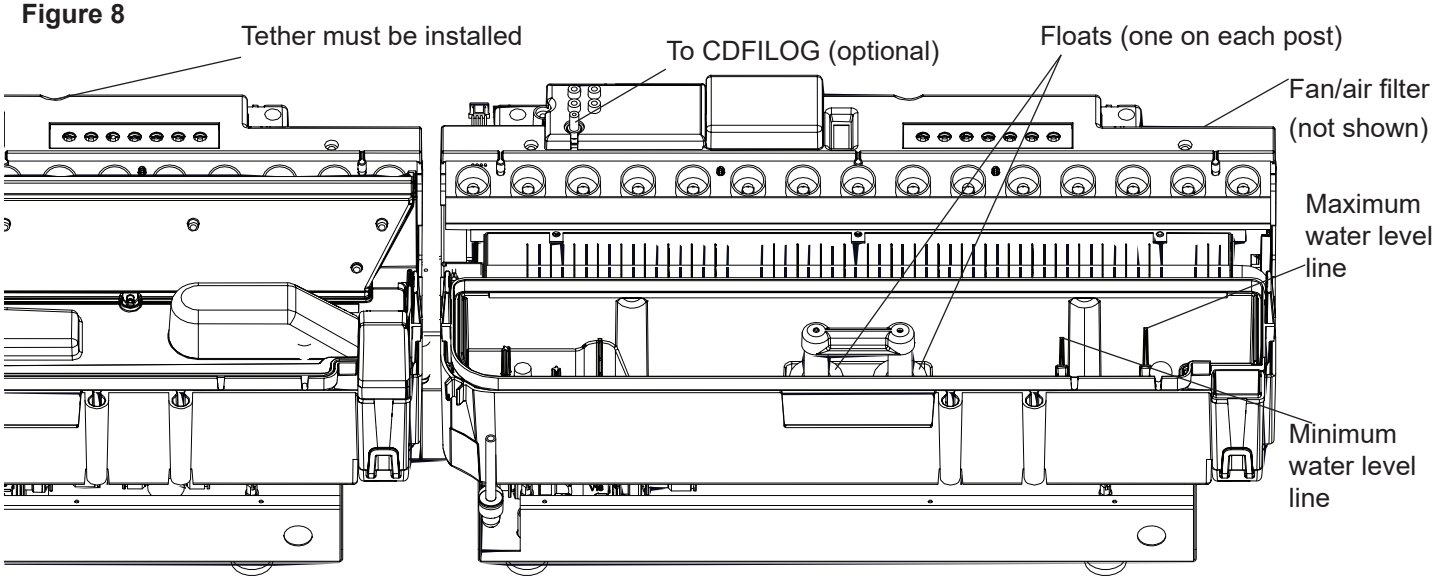
! **NOTE:** Use caution when removing the electronics cover, to prevent strain on the connector wire attached to it.

3. Holding the assembly at either end of the LED light strip, on the primary end, gently lift the electronics assembly out of the unit (Figure 4).
4. Remove the refill bottle, top cover, transducer and sump.
5. Locate the solenoid valve to be replaced. (Figure 7)
6. Trace and disconnect the control wire for the solenoid back to the main control board.
7. Remove the two screws from the front face of the bracket to release the valve.
8. Disconnect the plumbing connections and remove the solenoid valve.
9. Run new wire through to main control board.
10. Install new solenoid valve.
11. Reconnect the control wire..

⚠ **CAUTION:** Ensure that the switchboard and terminal block have not moved from their original locations and all wires are contained under the cover before reassembly.

12. Re-assemble the remainder of the cassette in reverse order from the instructions above.

Figure 8



Troubleshooting Guide

*Before you begin consulting the troubleshooting guide, see Figure 8 to ensure the unit is ready for operation. The water level must be between the minimum and maximum water level lines, and the tethered controller must be correctly plugged in (red light on tethered controller will illuminate when cassette is powered on). When turning the unit on, ensure that both the power switch has been turned to the ON (**I**) position and that the standby button has been pressed.*

SECTION	PROBLEM	CAUSE	SOLUTION
1.0	**General**		
1.1	Fireplace does not turn on manually (unit does not beep when switch is engaged)	No incoming voltage	Check Fuse/Breaker Panel
			If multiple units are installed on the same circuit, ensure they are wired in parallel.
		Defective main control board	Replace main control board
		Defective electronic choke (primary side)	Replace electronic choke
		Defective power supply (unit may beep repeatedly to indicate error)	Replace power supply
		Defective fuse - typically due to insufficient air intakes	Correct air intake issues, and replace fused wire harness.
1.2	Only one side of the unit is operating	Tethered controller not installed correctly	Ensure that connection has clicked into place and red light is visible. If there is no light, replace tether.
		No power when standby button is pressed	Refer to section 1.1 for the secondary side
1.3	Fireplace does not turn on with the Remote Control	Improper operation	Refer to Operation Section
		The batteries in the remote control are dead (blue light on end of remote does not turn on when buttons are pressed)	Install new battery into the remote control
		Tethered controller not installed correctly	Ensure that connection has clicked into place and red light is visible.
		Remote not synchronized with the unit	Synchronize remote to unit. Unit will flash on and off during synchronization, completion will be indicated with 4 beeps
		Remote signal is not being received by tethered controller	Ensure that tethered controller is in an open area that can receive signal from remote control
		Defective remote control (blue light on end of remote does not turn on when buttons are pressed)	Replace remote control
1.4	LED lights not turning on	Defective LED light strip	Replace LED light strip
		LED driver defective (PRO MOD C+)	Replace LED driver
		LED driver not connected (PRO MOD C+)	If lights are not turning on after main control board replacement, ensure LED driver has been installed correctly (attached to main control board)
1.5	Noise when unit is on standby	Some buzzing is normal	If there is excessive noise, replace power supply
1.6	Unpleasant smell when unit is used.	Dirty or stale water.	Clean the unit as described under Maintenance.
1.7	Water is appearing around the unit	During normal operation it is expected to see some condensation of water on the media tray.	If condensation is present ensure that mist outlets are unobstructed
			Certain ambient conditions will cause condensation on the unit and in most cases will only occur on initial start up of the unit
			If there is excessive water, refer to section 4.1

SECTION	PROBLEM	CAUSE	SOLUTION
2.0	**Blinking (error codes)**		
After the unit has shut down due to an error, a power cycle of the unit will be required by turning the unit off with the power switch for 10 seconds then turning back on. If the LEDs are off, press the standby button to turn on the flame effect.			
2.1	Unit continuously blinks one time	Water level in the sump is too high	Remove enough water from reservoir so that level is below maximum level.
			If the problem persists, see section 4.5
2.2	Unit continuously blinks twice	Water level in the sump is too low	Refill the water reservoir so that level is above the minimum level
			If the problem persists, see section 3.7 if using bottles or section 4.3 if using direct water line
2.3	Unit continuously blinks three times	Defective level sensor assembly	Replace level sensor assembly
2.4	Unit continuously blinks four times	Water is refilling too slowly	Power cycle the unit
			If problem persists, clean water filter and inspect plumbing to make sure pressure is adequate and nothing is obstructing water flow.
3.0	**Flame**		
3.1	The flame effect has too much smoke or is coming out too fast	Normal operation	The flame may appear overly cloudy at startup. Allow 10 minutes for flame to stabilize
		Flame effect control is set too high	Adjust the flame height on both the secondary and/or primary controls
		Filter is missing off of fan housing	Insert fan filter
3.2	Mist is not coming out evenly	The top cover is positioned incorrectly	Ensure the tabs on each side are snapped into place
		Mineral buildup on the mist outlet	Perform maintenance cleaning
		Unit is not level	Adjust the feet under the unit to ensure that the unit has been installed level, front to back and side to side
		Media is blocking air flow	Rearrange media to ensure mist outlet is not being blocked
		The transducer is not operating correctly - put the unit in test mode to test the transducer	If the transducer is running, ensure that the emitter is clean and free of calcium deposits or scaling
			If the transducer is not running, replace the transducer with the provided additional transducer
		If using demineralized water, unit will not produce a consistent mist	Add 1/8 tsp of table salt to water reservoir to introduce electrolytes, only repeat when mist is not being produced correctly
		Water in unit is too cold	Allow water to warm to room temperature.
3.3	The flame effect is too low	Flame effect control is set too low	Adjust the flame height on both the secondary and/or primary controls
		Insufficient air intake	Enlarge area for air to enter unit in such a way that it will reach the bottom. Refer to to installation guide for requirements.
		Transducer is defective	Replace transducer
		Cord is located over emitter on transducer	Relocate cord so that mist is free to rise off of transducer
		Transducer is installed incorrectly	Ensure that the transducer is seated correctly
		Flame is not rising	Refer to section 3.2 to 3.5
3.4	Flame appears to be rolling back into the unit	Insufficient air intake	Enlarge area for air to enter unit in such a way that it will reach the bottom. Refer to to installation guide for requirements.
		The heating element is not operating correctly- put unit in test mode to test the operation of the heating element	If no click is heard from the relay, replace the main board
			If a click can be heard, but the element does not get warm, replace the heating element

SECTION	PROBLEM	CAUSE	SOLUTION
3.0	**Flame (continued)**		
3.5	Mist is being produced under the top cover, but does not rise to create a flame effect	Water in fan duct	Ensure there is no water in the duct that blows air up to the flame
		Fan is not operating correctly - put unit in test mode to test the fan	Ensure fan filter is clean and dry
			If fan is not working in test mode, replace fan. If issue persists, replace main board
3.6	Flame effect will not start, no error blinks	Normal operation	Mist will begin emitting out of the unit after 45 seconds of operation
		Flame is being produced, but is not rising beyong the top cover.	Carefully lift the top cover while the unit is operating. If mist is produced but is not rising, refer to section 3.5.
		The transducer is not connected	Ensure the transducer is firmly connected
		The transducer is not operating correctly - put the unit in test mode to test the transducer	If the transducer is running, ensure that the emitter is clean and free of calcium deposits or scaling
			If the transducer is not running, replace the transducer with the provided additional transducer
3.7	Flame colors of new units do not match	MOD C equipped with yellow LEDs, MOD 0-B equipped with orange LEDs	Replace orange LEDs and add LED driver board (9601270300RP) to main control board (1 each for CDFI500-PRO, 2 each for CDFI1000-PRO)
4.0	**Water Supply**		
4.1	Sump is not filling- ***refill bottle***	Bottle is tilting away from fill cap	Ensure unit is level. Place under the botle to slope it slightly toward the fill cap so that the water can easily flow to the water reservoir
4.2	Sump is overfilling - refill bottle	Bottlle or bottle cap is leaking	Inspect the bottle and cap for damage and replace if necessary.
4.3	Water is appearing beneath unit	Connections are leaking	Ensure that all water connections are tight and fully inserted
		Incoming water pressure is too high	Reduce water pressure to below 58 psi (8 bar)
4.4	Unit is underfilling or not filling (hard plumbed to water source)	Unit is not level	Ensure that unit is level to allow an accurate reading of water level
		Valve not open	Ensure that the ball valve of the unit is open, and that water is getting to the unit
		Missing floats	Inspect sump to ensure floats are installed
		Defective level sensor assembly	Replace level sensor assembly
		The solenoids are not operating correctly - put unit in test mode to test the operation of the solenoids	If the solenoids are not working, replace the solenoid
4.5	Unit is not refilling and is not giving error blinks when water is too high or too low	Defective level sensor assembly	Replace level sensor assembly
4.6	Sump is overfillling.	Plumbing cap is leaking when orange cap is removed, indicating a defective solenoid	Can try flushing the solenoid by connecting water line in the opposite direction
			Replace solenoid
For additional troubleshooting relating to the CDFI-BX Pro-Box, refer to its service manual.			

Test Mode

Test Mode has been integrated into this product to improve end-of-line testing during production and can be used to isolate components for individual function testing. Test mode should be conducted by trained personnel only. The icons on the On Board Control buttons (Figure 1) do not match the commands they are associated with, when in test mode.

1. Ensure unit is connected to power and water is supplied.
2. Remove logs or top plate and set aside.
3. Press power switch on (Figure 1A). Presence of power will be indicated by one beep
4. Press the troubleshooting button (Figure 1D) on the side that the testing is required, unit will beep.
5. Press the following buttons to test functionality of listed components - press once will turn On and press again to turn off

	Component Test	Expected Functionality
	LED Assembly / LED Driver	Lights turn on
	Sound	Crackling sound turns on
	Fan	Fan turns on
	Transducer	Transducer will turns on and bubbling will be seen coming out of the transducer
	Solenoids	Solenoids will turn On (the main solenoid coming in and the solenoid on the side being tested). The sound of the solenoids can be heard (a slight thump), and possibly the sound of water flowing.
	Heater Relay	Relays will be activated to turn the heating element on, a quiet clicking noise can be heard. The element will get warm.
	Log Set	LEDs in log set will turn on (if present)

6. After 15 seconds of inactivity the unit will beep and then return to regular Standby mode, or the On/Off button can be switched to Off to end the test mode.

REV	PCN	DATE
00	-	21-12-15
01	-	31-07-19
02	-	07-10-19
03	-	08-07-20
04	-	04-29-21
05	ECO-000335	07-12-21

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