



# **Service Manual**

Model Number DS7420 DS7425DLX

UL Part Number 6900470759 6900471604

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

Dimplex North America LimitedREVPCNDATE1367 Industrial Road • Cambridge ON Canada N1R 7G81-888-346-7539 • www.dimplex.com00-31-AUG-11In keeping with our policy of continuous product development, we reserve the right to make changes without notice.00-31-AUG-11© 2011 Dimplex North America Limited7400480000R00----

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

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

# **OPERATION**

To access the controls, go to the back of the stove (Figure 1).



#### A. Three Position On/Off Switch

The switch has two On positions marked with "I" and "II". The "I" position is for manual operation. In this position the built-in remote control is bypassed.

The "II" position is for operating the unit with the provided remote control. When in "II" position the unit is operated with the ON and OFF buttons of the remote control.

When the switch is in the center position "O" the unit is off.

# B. Light On/Off Switch

The Light On/Off Switch supplies power to the upper light of the log bed display area.

#### C. Meater On/Off Switch

The Heater On/Off Switch supplies power to the heater.

#### D. Heater Thermostat Control

To adjust the temperature to your individual requirements, turn the thermostat control clockwise all the way to turn on the heater. When the room reaches the desired temperature, turn the thermostat knob counter clockwise until you hear a click. Leave in this position to maintain the room temperature at this setting. For additional heat, turn clockwise until you hear the click again and the heater will turn on.

### **Resetting the Temperature Cutoff Switch**

Should the heater overheat, an automatic cut out will turn the heater off and it will not come back on without being reset. It can be reset by switching the Three Position Switch to Off "**O**" and waiting five (5) minutes before switching the unit back on.

▲ CAUTION: If you need to continuously reset the heater, unplug the unit and call Customer Service at 1-888-346-7539.

### **Remote Control**

The stove is supplied with an integrated On/Off remote control.

**!** NOTE: Ensure that the stove's Three Position Switch is set to the remote Control setting ("II" position).

To operate, push the ON button to turn stove on, push the OFF button to turn the stove off.

#### **Remote Initialization**

Follow these steps for remote control initialization and if required, re-initialization:

- 1. Disconnect power to stove.
- 2. Set the Three Position On/Off Switch to the Remote position (Figure 1A).
- 3. Wait a minimum of five (5) seconds and then re-acquire power to stove.
- 4. Within 10 seconds of re-acquiring power, press the ON button located on the remote control transmitter.
- **!** NOTE: You will have only 10 seconds to perform this last step. Failure to do so will result in these steps needing to be followed again.

#### **Battery Installation**

To install or replace the battery:

- 1. Slide battery cover open on the hand held transmitter (Figure 2).
- 2. Correctly install one (1) 12 Volt (A23) battery in the battery holder.
- 3. Close the battery cover.



Battery must be recycled or disposed ofproperly. Check with your Local Authority or Retailer for recycling advice in your area.



# **OPERATION - DS7420 MOD A - D**

To access the controls, go to the back of the stove. (Figure 3)

#### A. MAIN POWER ON/OFF SWITCH

The main power on/off switch supplies power to all stove functions (heater & flame).

#### **B. TOP LIGHT ON/OFF SWITCH**

Controls the light intensity of the log bed display area.

#### C. HEATER ON/OFF SWITCH

The heater on off switch supplies power to the heater.

#### D. HEATER THERMOSTAT CONTROL

To adjust the temperature to your individual requirements, turn the thermostat control clockwise all the way to turn on the heater. When the room reaches the desired temperature, turn the thermostat knob counter clockwise until you hear a click. Leave in this position to maintain the room temperature at this setting. For additional heat, turn clockwise until you hear the click again and the heater will turn on.

#### **RESETTING THE TEMPERATURE CUTOFF SWITCH**

Should the heater overheat, an automatic cut out will turn the heater off and it will not come back on without being reset. It can be reset by switching the MAIN ON/OFF SWITCH to OFF and waiting 5 minutes before switching the unit back on.

▲ CAUTION: If you need to continuously reset the heater, unplug the unit and call Dimplex North America Limited at 1-800-668-6663.



### REMOTE CONTROL

The remote control has a range of approximately 50ft. (15.25m) it does not have to be pointed at the stove and can pass through most obstacles (including walls). It is supplied with one of 243 independent frequencies to prevent interference with other units. The frequency designation is indicated on the back of the transmitter (Figure 4)

#### **REMOTE CONTROL INSTALLATION**

- 1. Plug stove cordset into the outlet located on the side of the receiver. (Figure 4)
- 2. Plug receiver into the wall outlet.
- 3. Install a 9 volt battery into the transmitter. (Figure 4)

#### ! NOTE:

- Stove MAIN on/off switch must be in the ON position prior to using the Remote Control.
- ON/OFF Remote Control may be used to control most other electrical devices including T.V.'s, stereos and lamps.

#### **CAUTION:**

- For indoor use in dry areas only
- For use on electrical devices with 15 amp resistive load or 1/3 HP inductive load
- 120 volt AC only



# MAINTENANCE

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

#### Light Bulb Replacement

Allow at least five (5) minutes for light bulbs to cool off before touching bulbs to avoid accidental burning of skin.

Light bulbs need to be replaced when you notice a dark section of the flame or when the clarity and detail of the log exterior disappears.

There are three (3) bulbs under the Log Set Assembly, which generate the flames and embers, and one (1) bulb above that illuminate the log exterior.

Tool Requirements: Phillips screw driver

**Helpful Hints:** It is a good idea to replace all light bulbs at one time if they are close to the end of their rated life. Group replacement will reduce the number of times you need to open the unit to replace light bulbs.

**Upper Bulb Requirement:** Quantity of one (1) 7 Watt candelabra E12 small base 120 Volt.

#### Do not exceed 7 Watts per bulb.

Upper Bulb Replacement (Figure 5)

- 1. Open door by pulling the handle.
- 2. Locate the upper bulb bracket.
- 3. Bend light retainer bracket down.
- 4. Locate and remove light bulb.
- 5. Insert and install new bulb.
- 6. Bend light retainer bracket back into its original position.
- 7. Close the door.

#### Figure 5



**Lower Bulbs Requirement:** Quantity of three (3) 35 Watt Halogen Quartz lamps, 120 Volt, G9 Base.

Do not exceed 35 Watts per bulb.

#### Lower Bulb Replacement

- 1. Remove the stove pipe kit (if equipped).
- 2. Gently place stove on its back on a flat surface.
- Remove the heater cover retaining screws located on the bottom of the stove (Figure 6) and lower heater and light assembly out onto the floor.
- 4. Remove the burnt out bulb(s) by pulling straight out of socket. If bulbs are difficult to remove form socket move the bulb from side to side while pulling being careful not to damage the light socket.
- 5. Replace the lower light bulbs.
- 6. Reassemble in the reverse order as above.

#### **Glass Cleaning**

The clear door is cleaned in the factory during the assembly operation. During shipment, installation, handling, etc., the clear door may collect dust particles. These can be removed by dusting lightly with a clean, dry cloth.

To remove fingerprints or other marks, the clear doors can be cleaned with a damp cloth. The clear door should be completely dried with a lint free cloth to prevent water spots. To prevent scratching, do not use abrasive cleaners or spray liquids on the clear door surface.

#### **Plastic Door Cleaning**

To remove fingerprints or other marks, the clear doors can be cleaned with a damp cloth. The clear door should be completely dried with a lint free cloth to prevent water spots. To prevent scratching, do not use abrasive cleaners or spray liquids on the clear door surface.

#### Stove Surface Cleaning

Use warm water only to clean painted surfaces of the Stove. Do not use abrasive cleaners.

#### Servicing

Except for light bulb replacement and cleaning described above, an authorized service representative should perform any other servicing.

#### Figure 6



# **EXPLODED PARTS DIAGRAM**



# **Replacement Parts List**

### **Replacement Part:**

1.	Log Set0438200200RP
2.	Door0438610100RP
3.	Foot0438680100RP
4.	Flame Motor
5.	Heater Assembly
6.	Thermostat
7.	2-Position Switch
8.	3-Position Switch (On/Off/Remote) 2800071100RP
9.	Cord Set4100040300RP
10.	Upper Light Harness

11. Mirror
12. Reflector Assembly
13. Front Glass
14. Capacitor
15. Terminal Block4000070100RP
16. Control Knob
17. Remote Control Receiver
18. Remote Control Transmitter
19. LED Log Driver (DS7425DLX)3000390100RP

# WIRING DIAGRAM



DS7420 MOD A - D



# TO REPLACE UPPER LIGHT BULB

▲ WARNING: If unit was operating prior to servicing allow at least 10 minutes for light bulbs and heating element to cool off to avoid accidental burning of skin.

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

Light bulbs need to be replaced when you notice a dark section of the flame or when the clarity and detail of the log exterior disappears. There is one bulb at the top of the opening that illuminates the log set exterior and two bulbs under the log set which generate the flames and embers.

It is a good idea to replace all of the light bulbs at one time if they are close to the end of their rated life. Group replacement will reduce the number of times you need to open the unit to replace the light bulbs.

- 1. Open door by pulling the handle.
- 2. Locate the upper bulb bracket.
- 3. Bend light retainer bracket down.
- 4. Locate and remove the light bulb.
- 5. Insert new bulb.
- 6. Bend light retainer bracket back into its original position.
- 7. Close the door.

**UPPER LIGHT BULB REQUIREMENTS:** Quantity of 1 clear chandelier or candelabra bulbs with an E-12 (small) socket base, 7 watt rating.

# TO REPLACE LOWER LIGHT BULBS

WARNING: If unit was operating prior to servicing allow at least 10 minutes for light bulbs and heating element to cool off to avoid accidental burning of skin.

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

Light bulbs need to be replaced when you notice a dark section of the flame or when the clarity and detail of the log exterior disappears. There is one bulb at the top of the opening that illuminates the log set exterior and three bulbs under the log set which generate the flames and embers.

It is a good idea to replace all of the light bulbs at one time if they are close to the end of their rated life. Group replacement will reduce the number of times you need to open the unit to replace the light bulbs.

- 1. Remove the stove pipe kit (if equipped).
- 2. Gently place stove on its back on a flat surface.
- 3. Remove the heater cover retaining screws located on the bottom of the stove and lower heater and light assembly out onto the floor.
- 4. Remove the burnt out bulb(s) by pulling straight out of socket. If bulbs are difficult to remove form socket

move the bulb from side to side while pulling being careful not to damage the light socket.

- 5. Replace the lower light bulbs.
- 6. Reassemble in the reverse order as above.

**LOWER LIGHT BULB REQUIREMENTS:** Quantity of 3 – 35 watt Halogen Quartz lamps, 120 volt, G9 base. DO NOT EXCEED 35 WATTS PER BULB

## TO REPLACE MAIN POWER SWITCH

WARNING: If unit was operating prior to servicing allow at least 10 minutes for light bulbs and heating element to cool off to avoid accidental burning of skin.

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

- 1. Remove back panel screws located along the rear of the top panel.
- 2. Open front door and release the Cams located in the upper corner of both side panels.
- **! NOTE:** To release Cams ensure arrow on Cam is facing up.



- 3. Remove top panel.
- 4. Locate the main on/off switch mounted on the rear panel and disconnect the wiring clips and connections noting their original locations.
- 5. Depress the retainer clips on the rear of the switch and push the switch out of the rear cover.
- 6. Properly orient the new switch and connect all of the wiring clips and connections.
- 7. Reassemble in the reverse order as above.

### TO REPLACE UPPER LIGHT ON/OFF SWITCH

- WARNING: If unit was operating prior to servicing allow at least 10 minutes for light bulbs and heating element to cool off to avoid accidental burning of skin.
- WARNING: Disconnect power before attempting any maintenance or cleaning to reduce the risk of electric shock or damage to persons.
- 1. Remove back panel screws located along the rear of the top panel.
- 2. Open front door and release the Cams located in the upper corner of both side panels.
- **! NOTE:** To release Cams ensure arrow on Cam is facing up.



- 3. Remove top panel.
- 4. Locate the upper light on/off switch mounted on the rear panel and disconnect the wiring clips and connections noting their original locations.
- 5. Depress the retainer clips on the rear of the switch and push the switch out of the rear cover.
- 6. Properly orient the new switch and connect all of the wiring clips and connections.
- 7. Reassemble in the reverse order as above.

### TO REPLACE FLAME MOTOR/FLAME ROD

- WARNING: If unit was operating prior to servicing allow at least 10 minutes for light bulbs and heating element to cool off to avoid accidental burning of skin.
- WARNING: Disconnect power before attempting any maintenance or cleaning to reduce the risk of electric shock or damage to persons.
- 1. Gently place stove on its back on a flat surface.
- 2. Remove the heater cover retaining screws located on the bottom of the stove and lower heater and light assembly out onto the floor.
- Remove all of the mounting screws on the heater cover and separate the cover from the heater and light assembly.
- 4. Locate the flame motor and flame rod assembly and remove the wiring clips and connections located by the heater assembly noting their original locations.
- 5. Remove the flame motor mounting screws and disconnect the flame motor from the flame rod.

**!** NOTE: When removing the flame motor some damage may occur to the flame rod. If flame rod is damaged replace to insure proper operation.

6. Reassemble in the reverse order as above.

### TO REPLACE HEATER ON/OFF SWITCH

- ▲ WARNING: If unit was operating prior to servicing allow at least 10 minutes for light bulbs and heating element to cool off to avoid accidental burning of skin.
- WARNING: Disconnect power before attempting any maintenance or cleaning to reduce the risk of electric shock or damage to persons.
- 1. Remove back panel screws located along the rear of the top panel.
- 2. Open front door and release the Cams located in the upper corner of both side panels.

**!** NOTE: To release Cams ensure arrow on Cam is facing up.



- 3. Remove top panel.
- 4. Locate the heater on/off switch mounted on the rear panel and disconnect the wiring clips and connections noting their original locations.
- 5. Depress the retainer clips on the rear of the switch and push the switch out of the rear cover.
- 6. Properly orient the new switch and connect all of the wiring clips and connections.
- 7. Reassemble in the reverse order as above.

## TO REPLACE HEATER THERMOSTAT CONTROL

- ▲ WARNING: If unit was operating prior to servicing allow at least 10 minutes for light bulbs and heating element to cool off to avoid accidental burning of skin.
- ▲ WARNING: Disconnect power before attempting any maintenance or cleaning to reduce the risk of electric shock or damage to persons.
- 1. Gently place stove on its back on a flat surface.
- 2. Remove the heater cover retaining screws located on the bottom of the stove and lower heater and light assembly out onto the floor.
- Remove all of the mounting screws on the heater cover and separate the cover from the heater and light assembly.
- 4. Locate the thermostat mounted to the heater cover and disconnect the wiring connections noting their original locations.
- 5. Pull off the thermostat control knob to expose the mounting screws.
- 6. Remove the mounting screws and remove the heater thermostat control switch.
- 7. Properly orient the new heater thermostat control and connect all of the wiring connections.
- 8. Reassemble in the reverse order as above.

# TO REPLACE HEATER ASSEMBLY

- WARNING: If unit was operating prior to servicing allow at least 10 minutes for light bulbs and heating element to cool off to avoid accidental burning of skin.
- WARNING: Disconnect power before attempting any maintenance or cleaning to reduce the risk of electric shock or damage to persons.
- 1. Gently place stove on its back on a flat surface.
- 2. Remove the heater cover retaining screws located on the bottom of the stove and lower heater and light assembly out onto the floor.
- 3. Remove all of the mounting screws on the heater cover

and separate the cover from the heater and light assembly.

- 4. Locate the heater assembly and disconnect the wiring connections noting their original locations.
- 5. Remove heater mounting bracket screws and set aside heater assembly.
- 6. Properly orient the new heater assembly and connect all of the wiring clips and connections.
- 7. Reassemble in the reverse order as above.

# TO REPLACE THE POWER CORD

- WARNING: If unit was operating prior to servicing allow at least 10 minutes for light bulbs and heating element to cool off to avoid accidental burning of skin.
- WARNING: Disconnect power before attempting any maintenance or cleaning to reduce the risk of electric shock or damage to persons.
- 1. Gently place stove on its back on a flat surface.
- 2. Remove the heater cover retaining screws located on the bottom of the stove and lower heater and light assembly out onto the floor.
- Remove all of the mounting screws on the heater cover and separate the cover from the heater and light assembly.
- 4. Locate and disconnect the power cord wiring connections noting their original locations.
- 5. With needle nose pliers grasp the power cord strain relief grommet from inside the heater cover and push while twisting to remove.
- 6. Pull the power cord out through the hole in the heater cover.
- 7. Install the new power cord through the hole in the heater cover and connect all of the wiring connections in their original locations.
- 8. Install the power cord retaining grommet on the power cord and insert into the hole in the heater cover.
- 9. Reassemble in the reverse order as above.

# TO REPLACE REMOTE CONTROL RECEIVER BOARD

- WARNING: If unit was operating prior to servicing allow at least 10 minutes for light bulbs and heating element to cool off to avoid accidental burning of skin.
- WARNING: Disconnect power before attempting any maintenance or cleaning to reduce the risk of electric shock or damage to persons.
- 1. Open door by pulling the handles.
- 2. Loosen the 2 retainers on the inner sides of the unit by turning counter clockwise.
- 3. Remove 4 screws that secure the top on the rear of the unit.

- 4. Lift the top off of the unit. Carefully remove the mirror and store in a safe place to prevent damage.
- 5. Locate the circuit board on the rear wall of the unit.
- 6. Remove wiring connections from circuit board noting their original locations.
- 7. From inside the unit, break off the 4 mounting studs by grasping with pliers and twisting on the protruding part of the stud, push the remainder of the studs out through the back panel.

**!** NOTE: New mounting studs are supplied with the replacement circuit board

8. Reassemble in the reverse order as above.

# TO REPLACE LOG SET DRIVER BOARD - DS7425DLX MODEL ONLY

- ▲ WARNING: If unit was operating prior to servicing allow at least 10 minutes for light bulbs and heating element to cool off to avoid accidental burning of skin.
- WARNING: Disconnect power before attempting any maintenance or cleaning to reduce the risk of electric shock or damage to persons.
- 1. Open door by pulling the handles.
- 2. Loosen the 2 retainers on the inner sides of the unit by turning counter clockwise.
- 3. Remove 4 screws that secure the top on the rear of the unit.
- 4. Lift the top off of the unit. Carefully remove the mirror and store in a safe place to prevent damage.
- 5. Locate the circuit board on the rear wall of the unit.
- 6. Remove wiring connections from circuit board noting their original locations.
- 7. From inside the unit, break off the 4 mounting studs by grasping with pliers and twisting on the protruding part of the stud, push the remainder of the studs out through the back panel.
- **!** NOTE: New mounting studs are supplied with the replacement circuit board
- 8. Reassemble in the reverse order as above.

# **TROUBLESHOOTING GUIDE**

PROBLEM	CAUSE	SOLUTION
General		
Circuit breaker trips or fuse	Short in unit wiring.	Trace wiring in unit.
blows when unit is turned on	Improper circuit current rating	Additional appliances may exceed the current rating of the circuit breaker or fuse. Plug unit into another outlet or install unit on a dedicated 15 amp circuit.
Unit turns on or off by itself	Remote control has a similar frequency to other remotes in the area.	Replace Remote Control
	Radio frequency disturbance from out- side sources.	Replace hand held remote control and receiver board where necessary.
	Defective circuit board	Replace circuit board
Lights dim in room while the unit is on	Unit is drawing close to circuit current rating	Move the unit to another outlet or install unit on a dedi- cated 15 amp circuit
Power cord gets warm	Normal Operation	The power cord may get slightly warm to the touch when the heater is on
	Defective power cord	Replace power cord if cord gets hot to the touch.
Appearance		
Stove does not turn on	Improper operation	Refer to Operation Section
	Remote control not initialized to stove	Initialize the remote control
	Defective main on/off switch	Replace main on/off switch
	Defective remote control	Install new battery into the handheld transmitter. Re- configure remote where necessary
		Replace remote control circuit board where necessary
	Defective remote control switch	Replace remote control switch board
	Defective circuit board	Replace circuit board
	Loose wiring	Check wiring connections
	No incoming voltage from the electrical wall socket	Check Fuse/Breaker Panel
Flame Frozen	Defective flame motor	Replace flame motor
	Loose wiring	Check wiring connections
Flame not bright or flame not	Burnt light bulbs	Replace light bulbs
visible	Loose wiring	Check wiring connections
	Defective light harness	Replace light harness
Log set dim, not glowing	Burnt light bulbs	Replace light bulbs
Flame Shutter	Defective flame motor	Replace flame motor
Light leaking around the log set	Log set not positioned properly	Check log set for proper fit
Heater		
Heater is not turning off	Improper operation	Refer to Operation Section
	Defective heater on/off switch	Replace heater on/off switch
	Loose wiring	Trace wiring in unit
	Defective remote control	Replace remote control
	Defective circuit board	Replace circuit board

PROBLEM	CAUSE	SOLUTION
Heater Continued		
Heater is not turning on	Improper operation	Refer to Operation Section
	Defective heater assembly	Replace heater assembly
	Defective heater on/off switch	Replace heater on/off switch
Heater is turning off after a	Build up of dirt/dust in heater assembly	Clean out heater assembly
couple of minutes of operation	Defective Motor	Replace Motor
Heater emits an odor	Normal Operation	Normal operation is when the heater emits an odor for a brief period after the heater is initially turned on. The heater is burning off any dust accumulated during manufacturing or operation.
	Defective heater assembly	Replace heater assembly
Heater fan turns on but heater	Improper operation	Refer to Operation Section
lacks heat	Defective thermostat	Replace thermostat
	Loose wiring	Trace wiring in unit
	Defective heater assembly	Replace heater assembly
Heating element is glowing red	Normal Operation	Small glowing sections of the element are considered normal.
	Defective heater assembly	If larger glowing sections are causing the heater to trip the thermal cutout, unplug unit, discontinue use and replace heater assembly.
Heater fan runs continuously	Loose wiring	Trace wiring in unit
	Defective heater on/off switch	Replace heater on/off switch
	Defective heater assembly	Replace heater assembly
	Defective thermostat	Replace thermostat
Noise	·	
Excessive noise with the heater	Dirty blower assembly	Clean blower assembly
on	Defective blower assembly	Replace heater assembly
Grinding or excessive noise with the heater off	Moving flame rod hitting or rubbing against internal components	Ensure rod is straight and mounted properly in the bracket, spinning freely away from other components. Replace if necessary.
	Defective flame motor	Replace flame motor