

# CHESNEYS

## ELECTRIC FIRE USER MANUAL

powered by  
 Optimyst

Models

CDFI500-PRO

CDFI1000-PRO

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 Dimplex<sup>®</sup>

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## 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.

# Welcome

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Thank you and congratulations for purchasing an Opti-myst® cassette from Chesneys.

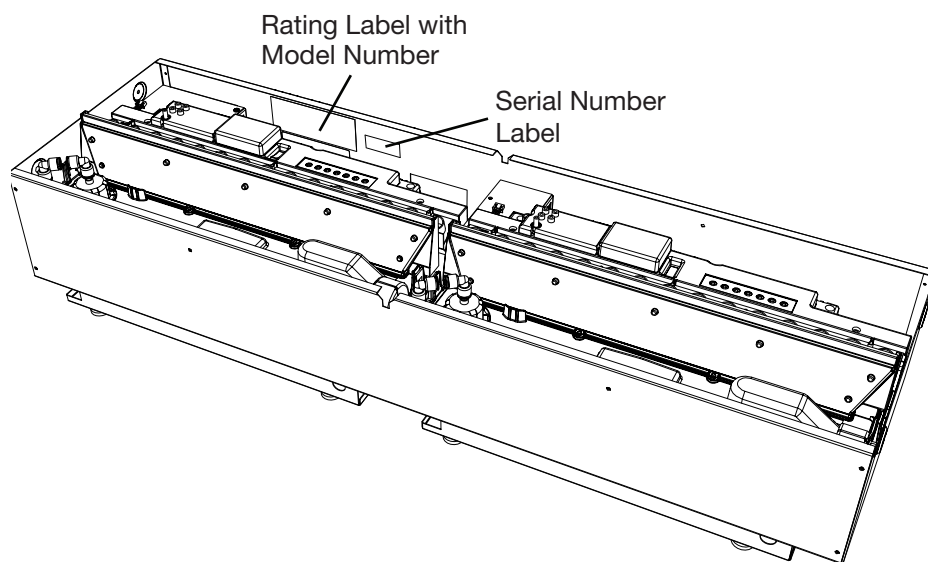
Please carefully read and save these instructions.

**⚠ WARNING:** Read all instructions and warnings carefully before starting installation. Failure to follow these instructions may result in a possible electric shock, fire hazard and will void the warranty.

Please record your model and serial numbers for future reference.

Model \_\_\_\_\_ MOD \_\_\_\_\_

Serial Number \_\_\_\_\_





# IMPORTANT INSTRUCTIONS


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When using electrical appliances, basic precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:


- ① Read all instructions before using the unit.
- ② Do not operate any unit if the unit has been dropped or damaged in any manner.
- ③ Do not use outdoors.
- ④ Extreme caution is necessary when any heater is used by or near children or invalids and whenever the heater is left operating and unattended.
- ⑤ Do not operate any heater after it malfunctions. Disconnect power at service panel and have heater inspected by a reputable electrician before reusing.
- ⑥ To disconnect the unit, turn the controls OFF, disconnect power at the service panel.
- ⑦ Do not insert or allow foreign objects to enter any ventilation or exhaust opening as this may cause an electric shock or fire, or damage the heater.
- ⑧ To prevent a possible fire, do not block air intakes or exhaust in any manner.
- ⑨ All electrical heaters have hot and arching or sparking parts inside. Do not use in areas where gasoline, paint, or flammable liquids are used or stored.
- ⑩ Do not modify the unit. Use it only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock or injury to persons.
- ⑪ Do not burn wood or other materials in the unit.
- ⑫ Always use a certified electrician should new circuits or outlets be required.
- ⑬ Disconnect the power supply before performing any cleaning, maintenance or relocation of the unit.
- ⑭ When transporting or storing the unit, keep in a dry place, free from excessive vibration and store so as to avoid damage.

 **WARNING:** Remote control contains small batteries. Keep away from children. If swallowed, seek medical attention immediately.

 **WARNING:** Do not install battery backwards, charge, put in fire or mix with used or other battery types - may explode or leak causing injury.


 **NOTE:** Changes or modifications not expressly approved by the party responsible for compliance could void user's authority to operate the equipment.

## FCC Compliance

 **CAUTION:** This unit has been tested and found to comply with the limits for Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This unit generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception, which can be determined by turning the unit OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the unit and the receiver.
- Connect the unit into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This unit complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This unit may not cause harmful interference, and (2) this unit must accept any interference received, including interference that may cause undesired operation.

 **FCC CAUTION:** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

## SAVE THESE INSTRUCTIONS



**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN  
NO USER-SERVICEABLE PARTS INSIDE



# Technical Specifications

## Electrical Rating

Voltage: 120 V

Power: CDFI500-PRO 230 W  
CDFI1000-PRO 460 W

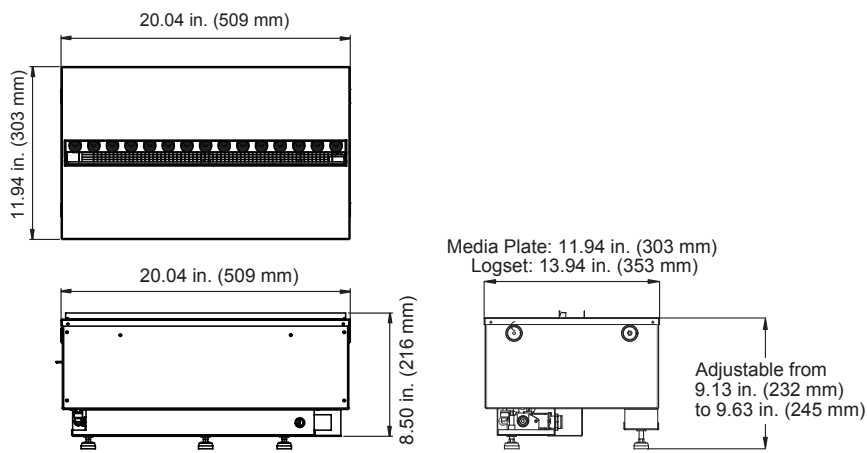
## UL Listing

File Number: E71416

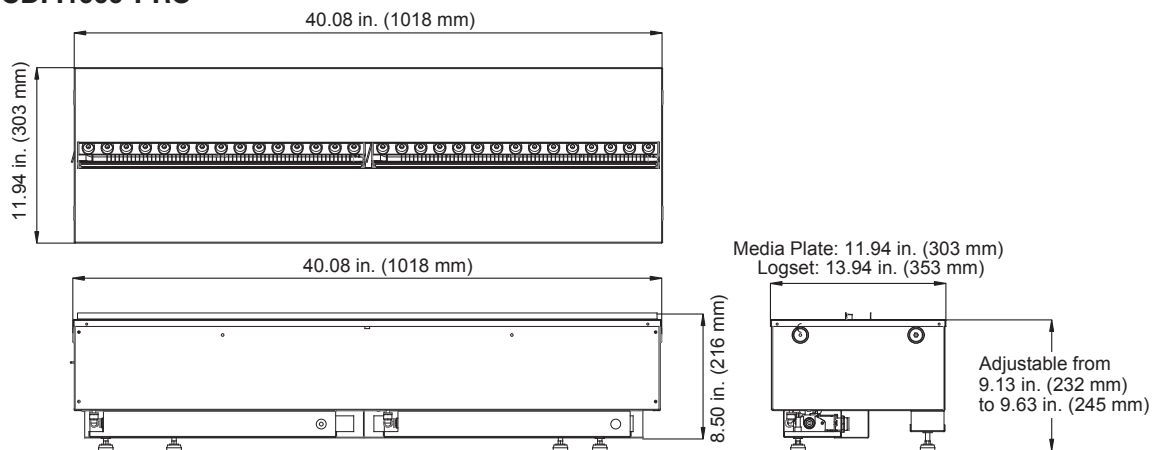
Model Reference	
CDFI1000-PRO	6909660300
CDFI500-PRO	6909660400

## Product Dimensions

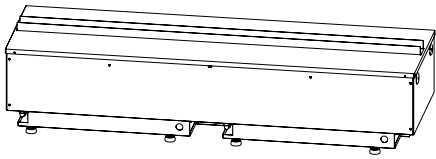

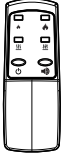

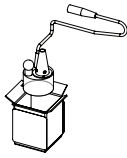
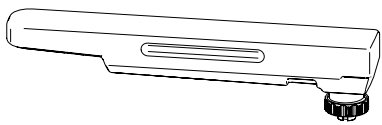

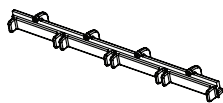


### CDFI500-PRO



### CDFI1000-PRO



# Package Contents

Image	Description	Quantity	
		CDFI1000-PRO	CDFI500-PRO
	Cassette	1	1
	Tethered Controller (1 installed)	1	1
	Remote	1	1
	AAA Batteries	2	2
	Transducers	4 (2 installed)	2 (1 installed)
	Refillable Water Container	2	1
	Instruction Manual	1	1
	Flame Baffles	4	2
	Slotted Flame Baffles	6	3
	Wire Connectors	3	3

\*Package contents are subject to change

## Optional Accessories

Description	Model Number	
	CDFI1000-PRO	CDFI500-PRO
Air Intake Grille <i>Accessory Air Intake Grille for fresh air inlets.</i>	X-00275	X-00275

\*Please contact your local Dimplex dealer for inquiries.

# Installation

## Air Inlets

A fresh air inlet that is a minimum of 80 inches<sup>2</sup> (516 cm<sup>2</sup>) for the CDFI1000-PRO and 40 inches<sup>2</sup> (258 cm<sup>2</sup>) for the CDFI500-PRO, is required. The air intake must allow for air to reach the underside of the Opti-myst Cassette (Figure 1 & 2).

Figure 1

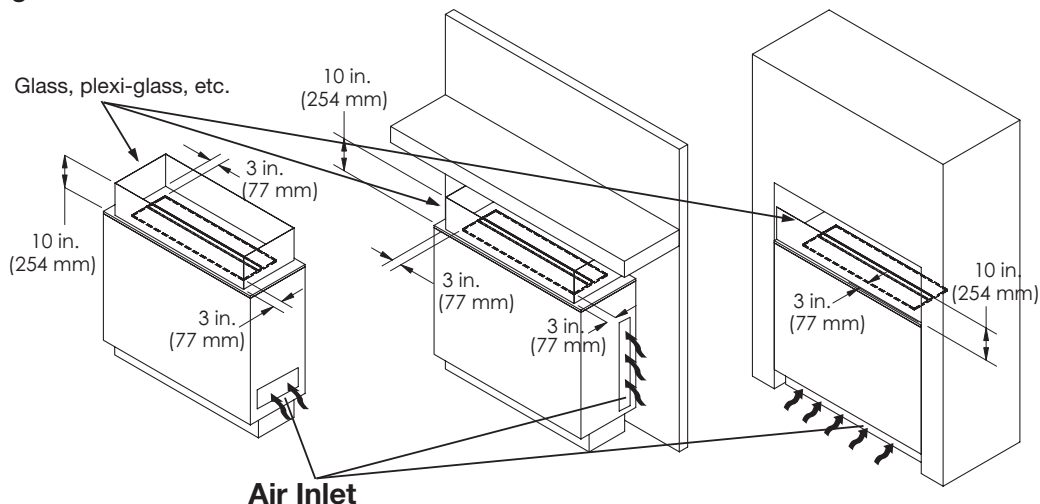
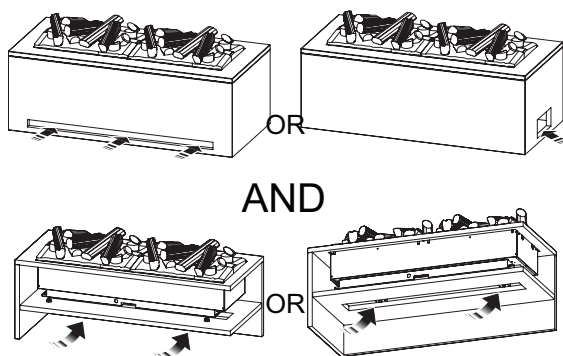


Figure 2



**Air Inlet Requirements**  
CDFI500-PRO: 40 in<sup>2</sup> (258 cm<sup>2</sup>)  
CDFI1000-PRO: 80 in<sup>2</sup> (516 cm<sup>2</sup>)

# Installation

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## Placement

- ! **NOTE:** Optimal installation height is 60" (152.4 cm) to the bottom of the media plate or log set. Installing the product above this height may reduce the flame visibility.
- ! **NOTE:** For *optimal performance*, a clearance of 18" (457 mm) between the bottom of the media plate or log set and any surface above should be maintained. A minimum clearance of 16" (405 mm) *must* be maintained.

The CDFI1000-PRO and CDFI500-PRO are supplied in an assembled state and are designed to be permanently installed. The units come ready for hardwire installation and the use of the water refill containers.

When determining a location for the Opti-myst® cassette, ensure that the unit will not be susceptible to drafts, vents, ceiling fans and other air currents. Similar to a candle, large movements of air will affect the unit's ability to create and maintain the flame effect. If the desired location is susceptible to significant air movement, such as air vents, the different installation options illustrated in Figure 1 (page 7) can be used. It is important that the surface surrounding the top of the cassette have at least a 3" (72 mm) clearance from any vertical surface and the barrier be 10" (254 mm) high from the installation surface, to ensure optimal flame production.

## Installation in a Bathroom

If this unit is installed in a bathroom, it must be protected by a GFCI receptacle or circuit. If a receptacle is used, it must be readily accessible.

To prevent electrical shock this unit is an electrical appliance that is not watertight and must be installed as to prevent water from entering the unit. This unit must be installed away from showers, tubs, etc. Never locate fireplace over a bathtub or other water containers. Keep towels and other combustible materials 3 feet (0.9 m) away from the top of the unit.

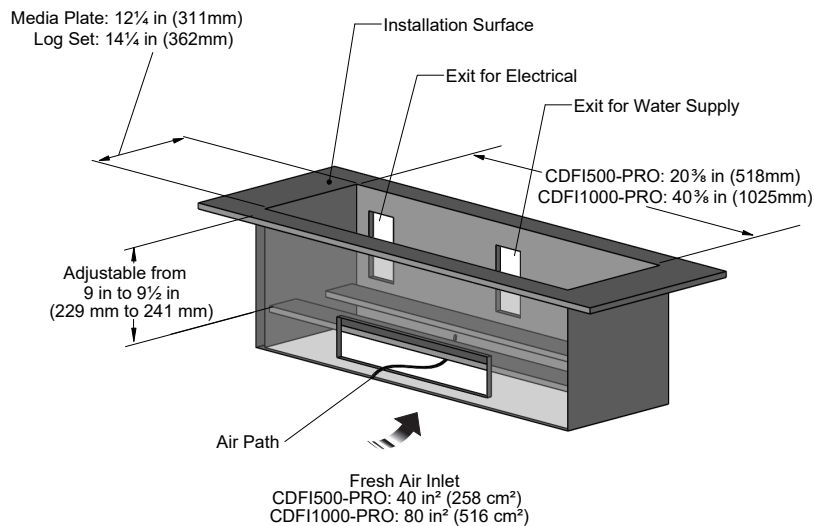
# Installation

## Installation Instructions

Please read all instructions before installing.

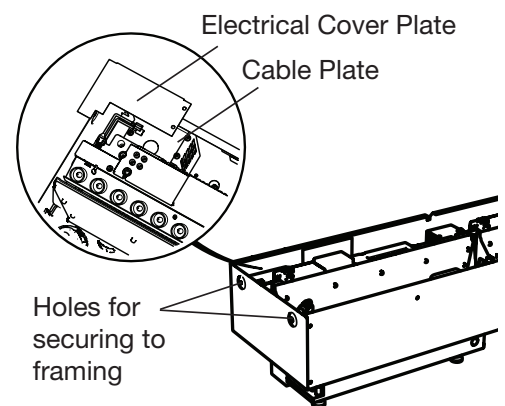
- ⚠ WARNING:** Failure to install the cassette as instructed below may result in damage to the equipment and or may expose the user to the risk of fire, serious injury, illness or death.
  - ⚠ WARNING:** Construction and electrical outlet wiring must comply with local building codes and other applicable regulations.
  - ⚠ CAUTION:** It is recommended that during drywall installation and finishing the media plate be installed with the provided bag to prevent dust and debris from entering the unit.
1. Use studs to frame an enclosure with the minimum internal/opening dimensions shown in Figure 3. Note that the media plate (supplied) and log set (optional, sold separately) require different opening widths.
    - ! **NOTE:** When preparing the opening for the unit  $\frac{1}{4}$ " (6.4 mm) of clearance should be maintained from each surface to ensure easy installation.

**Figure 3**



2. If connecting to plumbing, complete the water connection according to the instructions in the 'Cassette Plumbing' section (page 10).
3. In the back left corner of the unit, locate and remove the electrical cover plate, by removing the two securing screws (Figure 4).
4. Complete the wiring according to instructions in the 'Electrical Installation' section (page 11). Reinstall the electrical cover plate after completing wiring.
  - ! **NOTE:** If using the optional power cord (CDFI-PLUGKIT, sold separately), follow the instructions provided with the kit.
5. Install the unit into the rough-in framing ensuring that the unit is resting on two framing sills, one at the front and one at the back or a level surface. Ensure an air opening is maintained.
6. Level the housing - right to left and front to back, using the adjustable feet on the bottom of the unit.
7. Secure the unit to the permanent framing on either end through a minimum of two holes (Figure 4).

**Figure 4**



# Installation

## Cassette Plumbing

- ⚠ CAUTION:** Ensure that all plumbing connections meet local plumbing code requirements.
- ⚠ CAUTION:** Ensure that the location of the plumbing connection allows for easy access to allow for shutoff during scheduled maintenance.

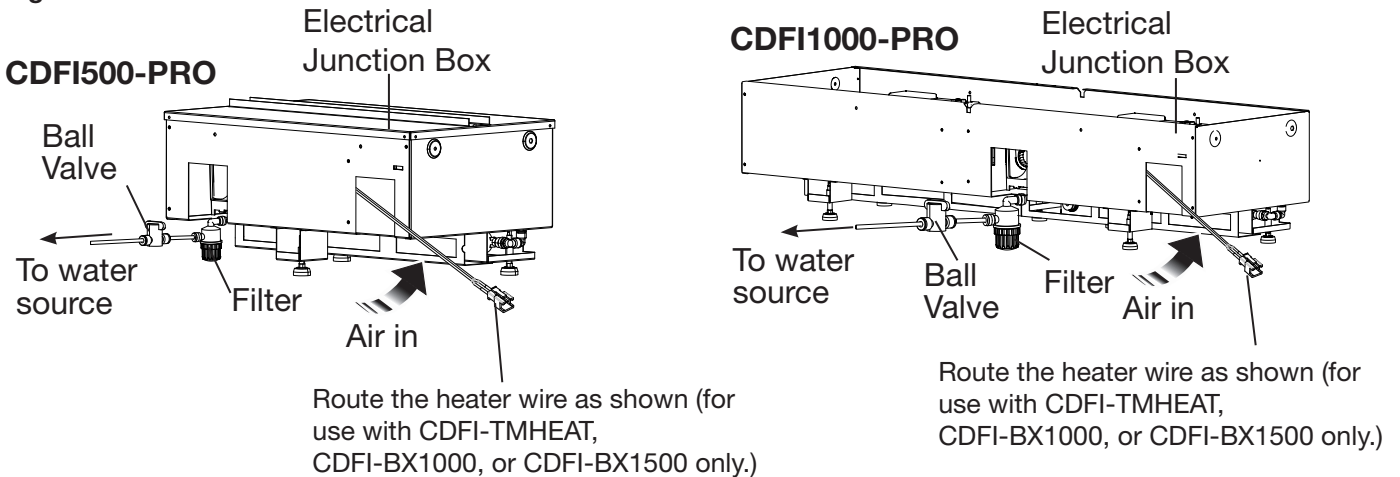
The units come equipped with refill containers for manual filling of the reservoir. The unit can be hard plumbed with the plumbing accessory kit - CDFIPLUMB-KIT, available from your local Dimplex dealer, or with standard 1/4" (6.4mm) tubing. The plumbing accessory kit is designed for use with copper piping.

1. Locate a cold water line in the vicinity of the desired location of the cassette.
  - ! **NOTE:** Normal tap water can be used in the Opti-myst® as long as the tap water is not considered to be hard water. In the event your tap water is hard, softened or filtered water is recommended.
2. Turn off the main water supply and drain the line of any standing water (if possible), before connecting the water line.
  - ! **NOTE:** Once the new plumbing connections are complete, ensure that the lines are flushed to prevent any debris from entering the unit.
3. Replace the top cover assemblies and ensure that the two plumbing caps are securely attached to the top cover of the water reservoirs. (Figure 13, page 16)
4. Locate the ball valve located in the bottom center of the unit (near the back) (Figure 5). Attach one end of the 1/4" (6.4 mm) tubing to the ball valve. Insert the tubing into the ball valve fitting so that it is fully inserted (approximately 1/2" [12 mm]).
  - ! **NOTE:** Ensure that the end of the tubing is cut square, to prevent leaking.
5. Route the tubing to the area of the water source.
6. Verify that all of the connections are fully inserted, and begin opening each of the valves, ensuring that no leaks are present.

## Connecting Multiple Units Together

When connecting multiple units together, the plumbing should be constructed in a manifold style configuration, sized appropriately for the number of units that are being installed so consistent water volume and pressure is being supplied to each unit.

Figure 5



# Installation

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## Electrical Installation

- ⚠ WARNING:** Do not attempt to wire your own new outlets or circuits. To reduce the risk of fire, electric shock or injury to persons, always use a licensed electrician.
- ⚠ WARNING:** Ensure that the On/Off switch is set to the 'off' position (refer to Operation section) and that the circuit on which the unit is to be installed has the power cut off at the service panel until installation is complete.
- ⚠ CAUTION:** A 15 Amp, 120 Volt circuit is required. A dedicated circuit is preferred but not essential in all cases. A dedicated circuit will be required if, after installation, the circuit breaker trips or the fuse blows on a regular basis when the cassette is operating. Additional appliances on the same circuit may exceed the current rating of the circuit breaker.

## Hardwired Installation

- ⚠ CAUTION:** Use two conductor, non-metallic sheath cable with ground wire (3 wires total) for the incoming power supply on the cassette. Use appropriate wire to meet local and national electrical codes for rated power.
1. Install a  $\frac{3}{8}$  in (10 mm) or  $\frac{1}{2}$  in (13 mm) cable connector, not included, suitable for mounting in a  $\frac{7}{8}$  in (22 mm) hole, to the cable plate and feed the supply cable through the connector. The cable plate can be removed by removing the two securing screws on either side, to allow for easier access (Figure 4, page 9).
  2. Connect the black wire (live) from the unit to the live from the power supply.
  3. Connect the white wire (neutral) from the unit to the neutral wire from the power supply.
  4. Connect the green wire (ground) from the unit to the ground wire from the power supply.
  5. Place all connections inside the unit and secure the cable clamp to unit, making sure that the cable clamp grips only the jacket of service cable.
- ⚠ WARNING:** Ensure the power wiring is not installed so that it is pinched or against a sharp edge and ensure that the power wiring is stored or secured to avoid tripping or snagging to reduce the risk of fire, electric shock or injury to persons.

## Connecting Multiple Units Together

When installing multiple units in the same vicinity they will need to be wired in parallel.

## Wall Switch

The Opti-myst® cassette is designed to allow for installation of a wall switch to control the incoming power to the unit. Use a single pole, single throw (On/Off) wall switch that is rated for a minimum of 15 amps.

# Installation

## Operation Preparation

1. After the drywall is installed and the surrounding area has been finished, remove the media plate from the unit.
2. Unwrap the tethered controller and ensure that the wire is lead through the opening for plumbing connections (Figure 5, page 10). Position the tethered controller so that:
  - a) it can be easily accessed, if being used as the main controls, or
  - b) it is not obscured by either bricks, stone, or sheet metal to avoid obstructing the signal from the remote control.
3. Initialize the tethered controller to the remote (see 'Operation' section, page 14).
4. Fill the unit with water:

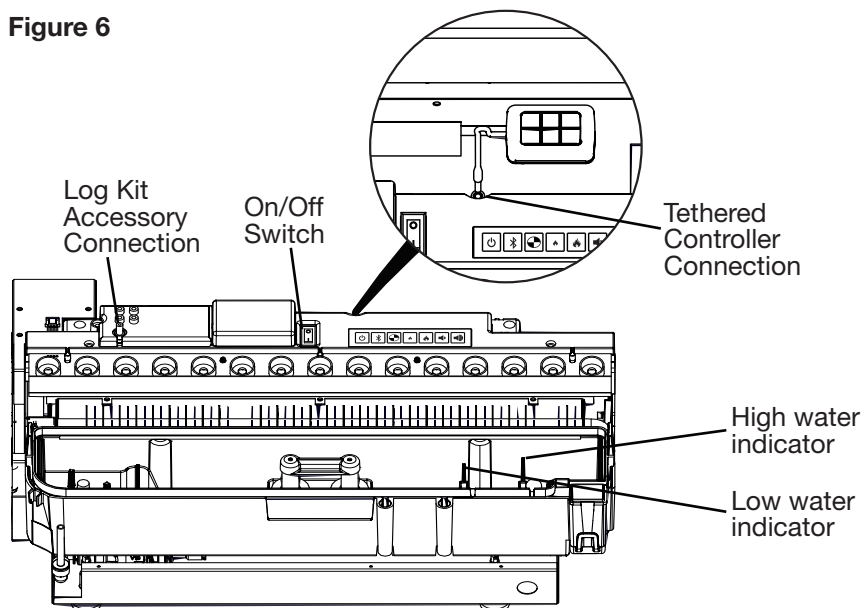
**Refill Containers** - remove the pre-installed plumbing cap(s), then install the refill containers (Figure 13, page 16). During initial installation, each refill container should be refilled after the reservoir has filled to ensure the maximum operating time. Each refill container holds 42 oz. (1.25L).

**Hard Plumbed** - prime each of the water reservoirs with 32 oz (1L) of water. The water level should fall between the 'High' and 'Low' water indicators (Figure 6).

5. Install the media plate or log kit accessory (sold separately) on top. If using the log kit, connect the wire to the outlet on the cassette to power the inner LEDs (Figure 6).

**! NOTE:** If the unit is accessorized with something other than just the media plate or log set, ensure that media used does not create small particles that may fall into the unit or have an overall weight above 10 lb (4.5 kg) for the CDFI500-PRO and 20 lb (9 kg) for the CDFI1000-PRO.

Figure 6



## General Operation

**⚠ WARNING:** This unit must be properly installed before it is used.

There are three different control options available for the unit: onboard controls, tethered controller, and remote control.

- ! **NOTE:** When the unit is installed in an environment where background noise is very low, it may be possible to hear a sound which is related to the operation of the flame effect. This is normal and should not be a cause for concern.
- ! **NOTE:** During normal operation it is expected to see some condensation of water on the media plate. This will vary depending on ambient conditions and should be considered normal.

## Onboard Controls

The onboard controls are located under the media plate (Figure 7). The CDFI1000-PRO unit has two separate internal modules that are controlled by the settings entered on the left side (primary). Finer adjustment can be done using the controls on the right module to have both modules operating at the same level (secondary).

## Remote Control and Tethered Controller

The tethered controller (Figure 8) can be used in the same manner as the remote (Figure 9). The tethered controller must be connected to the unit and the On/Off Switch must be in the 'on' (I) position in order for the remote to operate.

- ! **NOTE:** The remote control must be initialized with the unit prior to use. It is possible to synchronize up to 5 cassettes to one remote control.

Figure 7

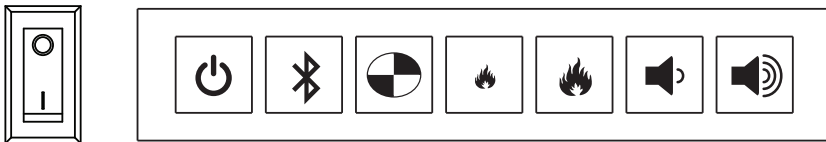
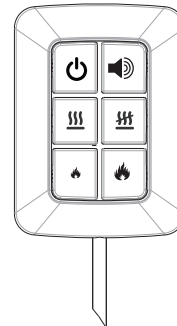
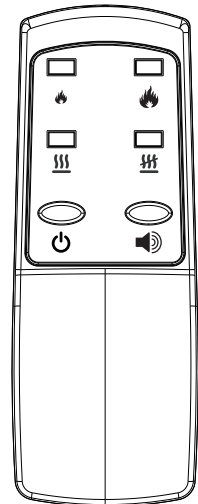


Figure 8



Tethered Controller

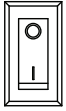
Figure 9



Remote Control

# Operation

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On/Off Switch Supplies power to the unit.

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Standby

Turns flame effect on or puts the unit into standby mode.

**! NOTE:** When the unit is first turned on the lights will come on and mist will appear after 45 seconds.




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Remote Control Initialization

Required for initializing the remote to the cassette.

To initialize the remote control:

1. Place the On/Off Switch in the 'on' (I) position and turn the flame effect on.
  2. Verify that the tethered controller is connected correctly - the red light on the tether will be illuminated.
  3. Press  button on the onboard controls (left side on CDFI1000-PRO). The cassette will begin to beep and the lights will blink every 2 1/2 seconds to indicate that the unit is in synchronization mode.
  4. Within 20 seconds of pressing , press  on the remote control.  
**! NOTE:** You will have only 20 seconds to perform this last step. Failure to do so will result in these steps needing to be followed again.
  5. If the synchronization was successful, the lights will blink and the unit will beep 4 times, then the unit will go to Standby.
- 





Test Mode

Used for troubleshooting issues - outlined in detail in the service manual which can be found on [www.dimplex.com/product-downloads](http://www.dimplex.com/product-downloads).

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Flame Intensity Control

Adjusts the intensity of the flame and smoke effect when the unit has been activated. Pressing the  will decrease the flame effect and pressing the  will increase the flame effect.

**! NOTE:** A few moments will be required between adjustment and a change to the flame effect.





**! NOTE:** On the CDFI1000-PRO, each side of the flame can be adjusted using the on-board controls.

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Volume Control

Adjusts the volume of the wood fire sound effects.

**On the unit:** Press the  to decrease the volume and press the  to increase the volume.




**On the Remote or Tethered Controller:** Pressing the  will turn the sound effect on or off.

---



Heat

Turns the optional heater accessory 'on'  or 'off' .

**! NOTE:** CDFI-TMHEAT, CDFI-BX1000, or CDFI-BX1500 must be connected for this control to work. See Figure 5 (page 10).

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## Filling the Refillable Containers

**⚠ CAUTION:** Allow at least five minutes for components to cool before disassembling the unit to refill.

When the water tank is empty, the flame effect will shut off and the LEDs will blink twice continuously. Follow these steps to refill the tank:

1. Carefully remove the media and media plate.
2. Turn the On/Off switch to the 'off' position (●).
3. Remove the refill container by lifting upwards and outwards.
4. Refill the container with water.

**! NOTE:** Normal tap water can be used in the Opti-myst® as long as the tap water is not considered to be hard water. In the event your tap water is hard, you may use softened water or distilled water. If using distilled water, it is recommended to add 1/8 tsp. of salt (0.5 mL) to the water reservoir; additional salt should only be when you notice that the unit is not producing mist as expected.

5. Screw the cap back on. *Do not overtighten.*
6. Return the refill container to the sump, with the tank cap facing down and the flat side of the tank facing outward.
7. Turn the On/Off switch to the 'on' position (■).
8. Carefully place media plate and media back into position.

## Flame Customization

The CDFI500-PRO and CDFI1000-PRO come with inserts that allow you to customize the look of the flame.

To use the spacers, first break them along the break line (Figure 10). Second, insert into the nozzle at desired locations. It is recommended to place them under any media that crosses through the flame, for example, logs.

To use the slots, insert them into the nozzle (Figure 11). A total of 3 slot inserts can be used in each nozzle.

Figure 10

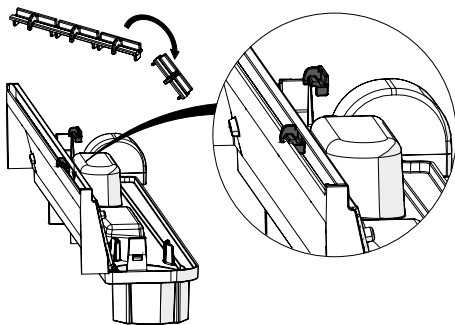
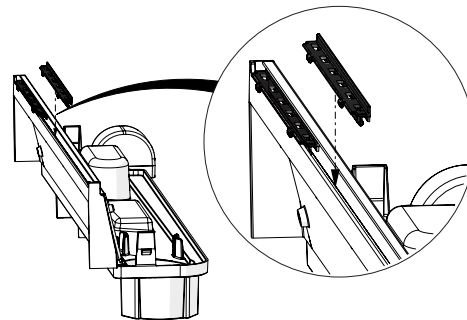


Figure 11




# Maintenance

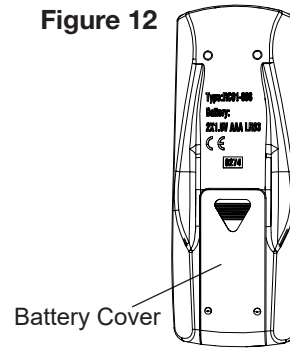
## Remote Control Battery Replacement

Figure 12

To replace the battery:

1. Slide battery cover open on the remote control (Figure 12).
2. Install two 1.5 Volt (AAA) battery in the battery holder.
3. Close the battery cover.

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



- ⚠ WARNING:** Disconnect power and allow element to cool before attempting any maintenance or cleaning to reduce the risk of fire, electric shock or damage to persons.
- ⚠ CAUTION:** If you need to move the unit ensure that all of the components that contain water have been emptied before relocating.
- ! NOTE:** If you do not intend on using the unit for longer than 2 weeks, empty and drain the unit of water, and dry all of the wet components.

## Cleaning

It is required that the top cover(s), sump(s), refillable water containers(s) (if used), and transducer(s) are cleaned with soap and water on a regular basis, **at a minimum once per month**. More frequent cleaning may be required depending on water quality.

**⚠ CAUTION:** Do not put plastic components in the dishwasher.

The air filters can be removed and gently rinsed with water to clean and dried on a towel before reinstalling. Reinstall the filter so that the coarse black side of the filter is facing the back of the unit.

Use only a damp cloth to clean the surfaces of the unit. Do not use abrasive cleaners.

## Transducer Replacement

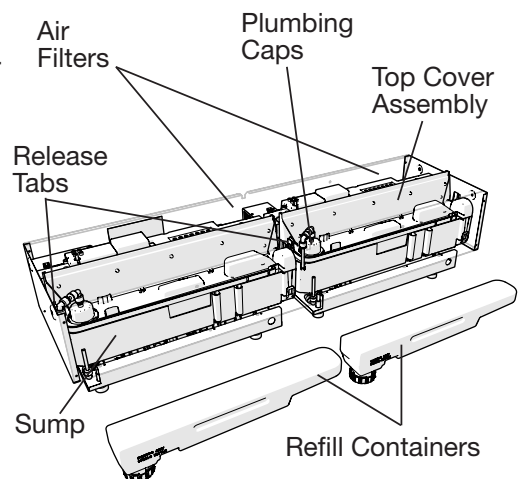
After prolonged use, the ability for the unit to produce mist may become reduced. If cleaning does not improve the performance of the flame effect, replacement of the transducer may be required. This unit comes with replacement transducers. Additional transducers may be purchased at [www.dimplex.com/replacement-parts](http://www.dimplex.com/replacement-parts) (9601210100RP).

**! NOTE:** To remove the transducer, release the retaining tab in the sump and remove transducer.

## Servicing


Except for installation and cleaning described in this manual, an authorized service representative should perform any other servicing.

Figure 13

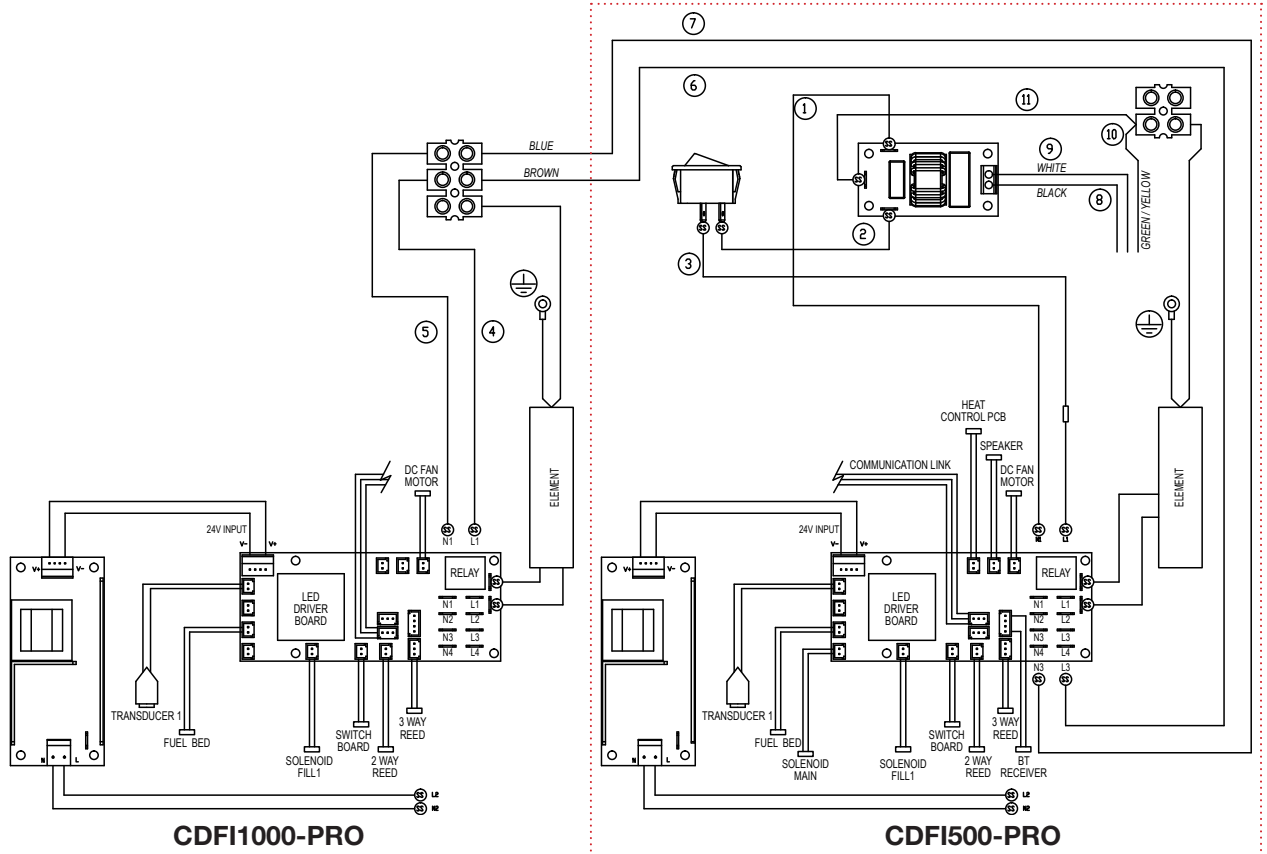


# Troubleshooting

For more troubleshooting, consult the CDFI Service Manual which can be found at [www.dimplex.com/product-downloads](http://www.dimplex.com/product-downloads)

Problem	Cause	Solution
Fireplace does not turn on with the onboard controls	No incoming power	Ensure unit is wired correctly Check main disconnect panel Ensure wall switch is on (if applicable)
	Power switch has not been turned on	Put the power switch in the 'on' position ( I )
	Standby button has not been pressed to turn on the flame effect	Press the standby button  until one beep is heard
Fireplace does not turn on with the remote control	The remote control has not been initialized to the tethered controller	Follow initialization instructions in the 'Operation' section.
	The batteries in the remote control are dead	Replace remote control batteries
Unit continuously blinks one time	Water level in the sump is too high	Turn off the unit from the power switch. Remove enough water from reservoir so that level is below maximum level.
Unit continuously blinks twice	Water level in the sump is too low	If using refillable containers, turn off the unit from the power switch. Follow 'Filling the Refillable Containers' instructions in the Operation Section.
		If using direct-plumbed, turn unit off with the power switch. Ensure ball valve is open. Wait 10 seconds before turning back on.
Unit continuously blinks three times	Level sensor error	Turn unit off with the power switch. Wait 10 seconds before turning back on.
		If problem persists, consult the service manual.
Unit continuously blinks four times	Fill cycle has timed out	Turn unit off with the power switch. Wait 10 seconds before turning back on.
		If problem persists, clean water filter and inspect plumbing to make sure pressure is adequate and nothing is obstructing water flow.

# Wiring Diagram



Scan this QR code to view  
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Set-Up videos.

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