

## Incident Summary #II-727632-2018 (#8165) (FINAL)

SUPPORTING INFORMATION	Incident Date	June 26, 2018	
	Location	White Rock	
	Regulated industry sector	Gas - Natural gas system	
	Impact	Qty injuries	0
		Injury description	None
		Injury rating	None
	Damage	Damage description	Front glass of fireplace shattered into living area.
		Damage rating	Minor
	Incident rating	Minor	
Incident overview	Delayed ignition occurred in a direct vent fireplace, causing the front glass to shatter and send glass fragments into the residential living space.		
INVESTIGATION CONCLUSIONS	Site, system and components	<p>Natural Gas is supplied to the residence by a gas utility which is then sent through a series of piping or tubing to the fireplace intended to be used as a source of heat.</p> <p>A call for heat is made via a switch installed in close proximity to the direct vent fireplace.</p> <p>When there is a call for heat the gas valve opens and the spark ignitor is energized in attempt to ignite the gas as it exits the burner.</p> <p>Once the burner has been ignited it sends a signal back to the fireplace to confirm it senses a flame and to de-energize the ignitor. The flue products produced from the combustion then exit the fireplace to the outdoors through the installed vent while fresh air for the proper combustion of the appliance is supplied through the installed air intake.</p>	
	Failure scenario(s)	<p>This model of fireplace that had a failure is specifically designed for use with glass pebbles as the internal decorative media.</p> <p>Glass pebbles were removed from the fireplace by a licensed gas contractor and replaced with a log set, small stones, copper glass and lava rock. These items were not only installed inside the fireplace, but directly on top of the gas burner and ignitor.</p> <p>A call for heat was made which opened the gas valve and energized the ignitor. With unapproved items installed directly on top of the burner and ignitor, the gas being released from the burner was unable to immediately ignite.</p> <p>Natural gas built up inside the sealed fireplace unit until it found a source of ignition, most likely the ignitor, and the pressure from the explosion shattered the glass into the living area.</p>	

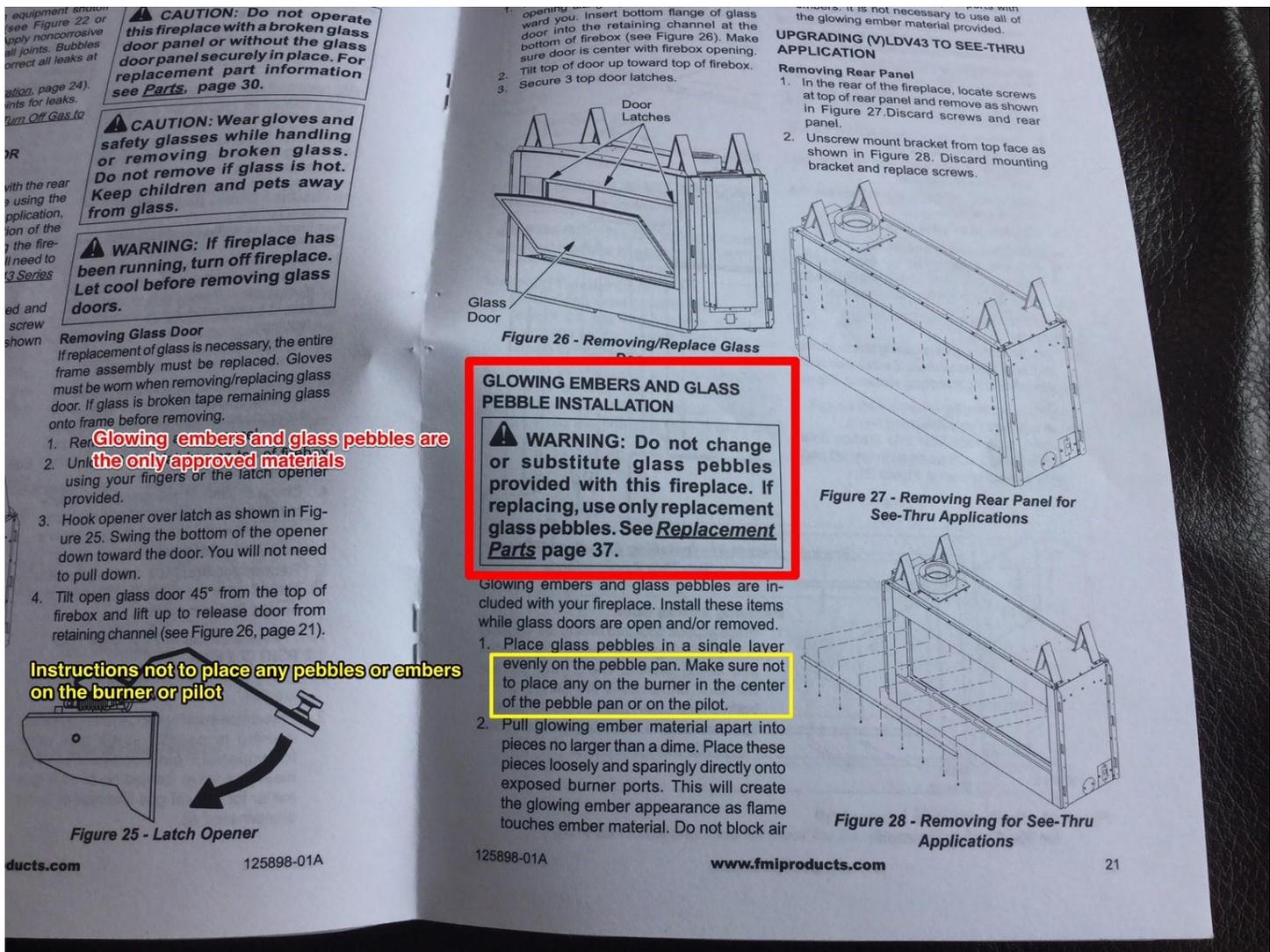
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<p style="text-align: center;">Facts and evidence</p>	<p>Homeowner</p> <ul style="list-style-type: none"> <li>• Homeowner states he hired a gas contractor to service the fireplace and replace glass pebbles with an alternate material.</li> <li>• Homeowner states that since alterations were made, minor delayed ignitions started occurring.</li> <li>• On the day of the glass failure, the homeowner noticed that the fireplace was taking longer than usual to ignite.</li> <li>• Homeowner states he then heard a large bang with the sound of glass breaking</li> </ul> <p>Observations</p> <ul style="list-style-type: none"> <li>• Fireplace contained items such as a log set, lava rocks, copper glass, and river rocks.</li> <li>• Fireplace burner and ignitor were completely covered over and not visible</li> <li>• The manufactures certified installation instructions supplied by the homeowner state “Do not change or substitute glass pebbles with this fireplace, use only replacement pebbles”.</li> <li>• The manufactures certified installation instructions also state “Make sure not to place any glass pebbles on the burner in the center of the pebble pan or on the pilot”.</li> <li>• Invoice supplied by the homeowner states that a local gas contractor was responsible for installing such items in the fireplace</li> </ul>
<p style="text-align: center;">Causes and contributing factors</p>	<p>It is highly probable that the placement and use of the unapproved materials inside the fireplace is what led to the delayed ignition, causing damage to the appliance.</p>

Photos or diagrams (if necessary)



Fireplace with damaged glass



Fireplace manufactures certified installation instructions



Inside the damaged fireplace

7	<u>BSMT</u>			
8				
9	1 EXISTING GAS FIREPLACE	1		
10	- GENERAL SERVICE			
11				
12	Invoice showing alterations made to fireplace			
13	<u>GREAT ROOM</u>			
14				
15	1 FMI INDOOR/OUTDOOR LINEAR	1		
16	- ADD COPPER GLASS			
17	- ADD SMALL DRIFTWOOD			
18	PIECES & SMALL STONES			
19	LAVA ROCK			
20				
21	[REDACTED]			
22				

TERMS: Net 30 days on account.  
Interest charged on overdue accounts at  
2% per month (26.8% per annum compounded).

WHITE - Customer

CANARY - File Copy

PINK - Numeric Control Copy

SUB TOTAL
G.S.T.
P.S.T.
INVOICE TOTAL

Invoice showing work completed to fireplace