

Incident Summary (Reference #5616479)

SUPPORTING INFORMATION	Incident Date		May 14, 2017	
	WW		West Kelowna	
	Regulated industry sector		Electrical: low energy system (30V to 750V)	
	Impact	Injury	Qty Injuries	No injuries
			Injury description	None
			Injury rating	None
	Damage	Damage description		The thermostat and thermostat outlet box used to control the space heater as well as the surrounding wall area around thermostat were burnt causing minor damage.
		Damage rating		Minor
Incident rating		minor		
Incident overview		Thermostat malfunctioned and overheated causing ignition of fire to thermostat and surrounding area		
INVESTIGATION CONCLUSIONS	Site, system and components		The Branch Circuit wiring provides power to the thermostat which allows the temperature of the space heating equipment to be controlled. By changing the dial on the thermostat, the user has the ability to control the amount of heat generated by the space heaters within the room where the heaters are located.	
	Failure scenario(s)		The outlet box wire fill capacity was exceeded, this caused the wires within the enclosure to press against the back of the thermostat. Over time, it is likely the back of the thermostat pressing on the wires inside the outlet box caused internal failure of the thermostat.	
	Facts and Evidence		-The back of the thermostat showed signs of a possible failure point as marks of electrical arcing were noticed. -The Home Owner had removed the original device from wall	
	Causes and Contributing Factors		-Thermostat outlet box capacity was exceeded. With the pressure of the large number of conductors against the back of the thermostat, this may have compressed the internal components of the thermostat causing the overheating of the device.	

photo attached: device was removed from original scene

