

CLASS A AND B GAS FITTER LIMITED SCOPE OF ELECTRICAL WORK**Date of Issue:** November 26, 2018**No:** IB-GA 2018-02**Topic**

This information bulletin details the scope of electrical work that may be performed by the holder of a valid class A or class B gas fitter's certificate of qualification while working under a valid gas contractor's license or applicable operating permit, as per section 8 of the [Gas Safety Regulation](#).

For the purposes of explaining the operation of section 8 of the Gas Safety Regulation, the following definitions apply:

Branch circuit - that portion of the wiring installation between the final overcurrent device protecting the circuit and the outlet(s).

Class 2 circuit - is the portion of the wiring system between the load side of a Class 2 power source and the connected equipment, these circuits are classified as circuits that are supplied from sources having limitations in accordance with BC Electrical Code Rule [16-200](#).

Close proximity - means a connection to an existing junction box or disconnect that is/has been installed by a qualified electrician in accordance with the Electrical Safety Regulation. Appliance disconnect requirements are outlined in the BC Electrical Code.

Extra-low voltage - any voltage not exceeding 30 V.

Outlet - a point in the wiring installation at which current is taken to supply utilization equipment.

Important Information

The assembly, manufacture, construction, installation, operation, testing, maintenance, alteration or repair of electrical equipment is defined as regulated work under the *Safety Standards Act*. Electrical work may only be performed by individuals that are authorized to do so in accordance with section 4 of the Electrical Safety Regulation.

Section 4 (1) (f) of the Electrical Safety Regulation allows individuals who hold valid certificates of qualification issued under the Gas Safety Regulation to perform limited electrical work. The Gas Safety Regulation, in turn, describes both the individuals who may perform the limited electrical work as well as the restrictions on the types of electrical work that they may perform.

As specified in section 8 of the Gas Safety Regulation, the holder of a valid class A or class B gas fitter's certificate of qualification may perform electrical work that is restricted to the installation, repair and maintenance of electrical wiring for solid, liquid and gaseous-fuel-fired heating equipment for any of the following:

- a) connecting branch circuit wiring to the heating equipment integral connection box from a junction box or disconnect mounted in close proximity to the heating equipment;
- b) class 2 circuit wiring up to a rated output of 100 Volt amps;
- c) low voltage controls or 24 volt thermostats.

In the circumstances described above, the holder of a valid class A gas fitter's certificate of qualification may also perform electrical work that is restricted to the installation, repair and maintenance of electrical wiring for solid, liquid and gaseous-fuel-fired heating equipment for 3 phase motors or controllers integral to the heating equipment.

Note: In all cases the regulated electrical work described above, when performed by the holder of a class A or class B gas fitter's certificate of qualification, may only be performed while working under a valid gas contractor's license, or where approved under a valid operating permit that allows for the associated scope of electrical work to be done.

Wiring of ancillary equipment related to a gas heating appliance installation, such as condensate or circulating pumps and electronic air filters is authorized by section 8 of the Gas Safety Regulation, provided that it is on the same circuit supplying the gas heating equipment **and** is connected downstream of the appliance disconnect switch or junction box. Where equipment is of the plug-in type, electrical connections must be performed as certified and not modified.

All regulated electrical work allowed to be performed by a class A or B gasfitter must be in compliance with the BC Electrical Code. In all cases electrical extension cords must not be used as a substitute for permanent wiring.

Class 2 Circuit Wiring

A circuit can be classified as a Class 2 circuit provided that two conditions are met:

1. the voltage of the circuit cannot exceed 150 volts.
2. the power output of the circuit supply must be restricted to 100 VA or less.

Extra-Low Voltage Wiring

Control or 24 volt thermostat circuits are defined as Class 2 circuits. In order for a certified gasfitter to be allowed to work on these circuits the 24V Class 2 transformer must be integral to the gas equipment or in the case of hydronic heating systems, receives its power supply from downstream of the associated heating appliance disconnect switch.

Other regulated electrical work beyond the scope identified in section 8 of the Gas Safety Regulation must only be performed under an appropriate electrical permit and in accordance with all worker qualification and identified requirements as specified in the Electrical Safety Regulation.

For information related to electrical certifications which authorize regulated electrical work beyond that authorized by section 8 of the Gas Safety Regulation (e.g. for: refrigeration equipment, electric hot water tanks) please view the [Electrical Safety Regulation](#). See fig. 01, Note (2) below for additional detail.

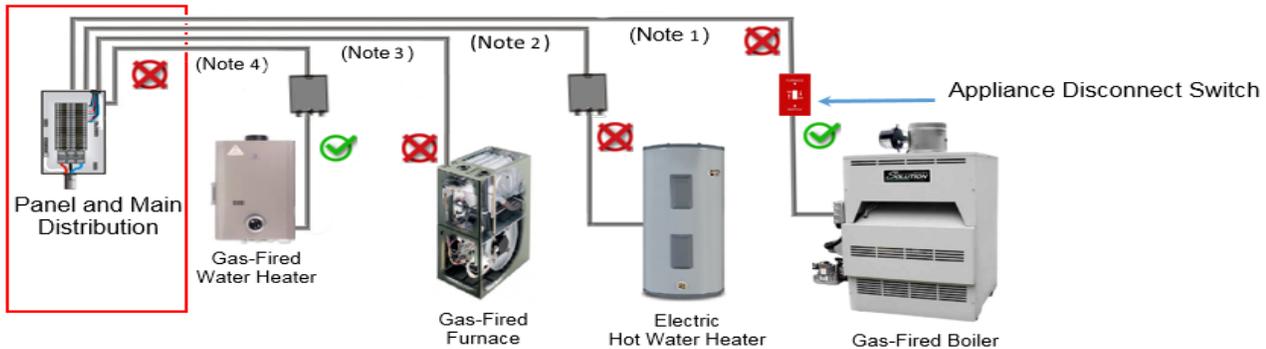
Gas Operating permits

Where an establishment requires and holds a valid gas operating permit in accordance with section 28 of the Gas Safety Regulation associated to the requirement for a class A or class B gas fitter, they may perform only the **limited** electrical work in relation to the equipment and appliances described in section 8 of the Gas Safety Regulation (as detailed above).

Note: For installations, or alterations to an existing gas installation, an appropriate gas installation permit must be obtained prior to performing regulated work or using a regulated product. Gas installation permits may be obtained by the holder of a recognized gas operating permit type without the requirement for a surety bond.

Fig. 01

Gas Safety Regulation - branch circuit wiring diagram - (shown with example of gas appliance types)



Notes:

- (1) Wiring between the main distribution panel and a junction box or an appliance disconnect is not authorized by section 8 of the Gas Safety Regulation. Wiring from the appliance disconnect to the appliance is allowed.
- (2) Electrical connection to any appliance or equipment that is not supplied by a solid, liquid and gaseous-fuel is not authorized under section 8 of the Gas Safety Regulation. This work must be performed by a licensed electrical contractor under an installation permit.
- (3) In cases where the BC Electrical Code (BCEC) allows for the main distribution panel circuit breaker to be the appliance disconnect, connection from the gas appliance to the circuit breaker panel is not authorized under section 8 of the Gas Safety Regulation. This work must be performed by a licensed electrical contractor under an installation permit.
- (4) In cases where the BCEC allows for the main distribution panel circuit breaker to be the appliance disconnect and there is a related junction box in close proximity to the appliance, wiring from the gas appliance to that junction box is authorized by section 8 of the Gas Safety Regulation.



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References:

Safety Standards Act
Gas Safety Regulation
Electrical Safety Regulation
The B.C. Electrical Code

For more information about Technical Safety BC, please visit our website at:
www.technicalsaftybc.ca