

Bulletin 4-15-0
Installation of identified conductor for luminaire control
Rules 4-022 2)

Issued May 2019

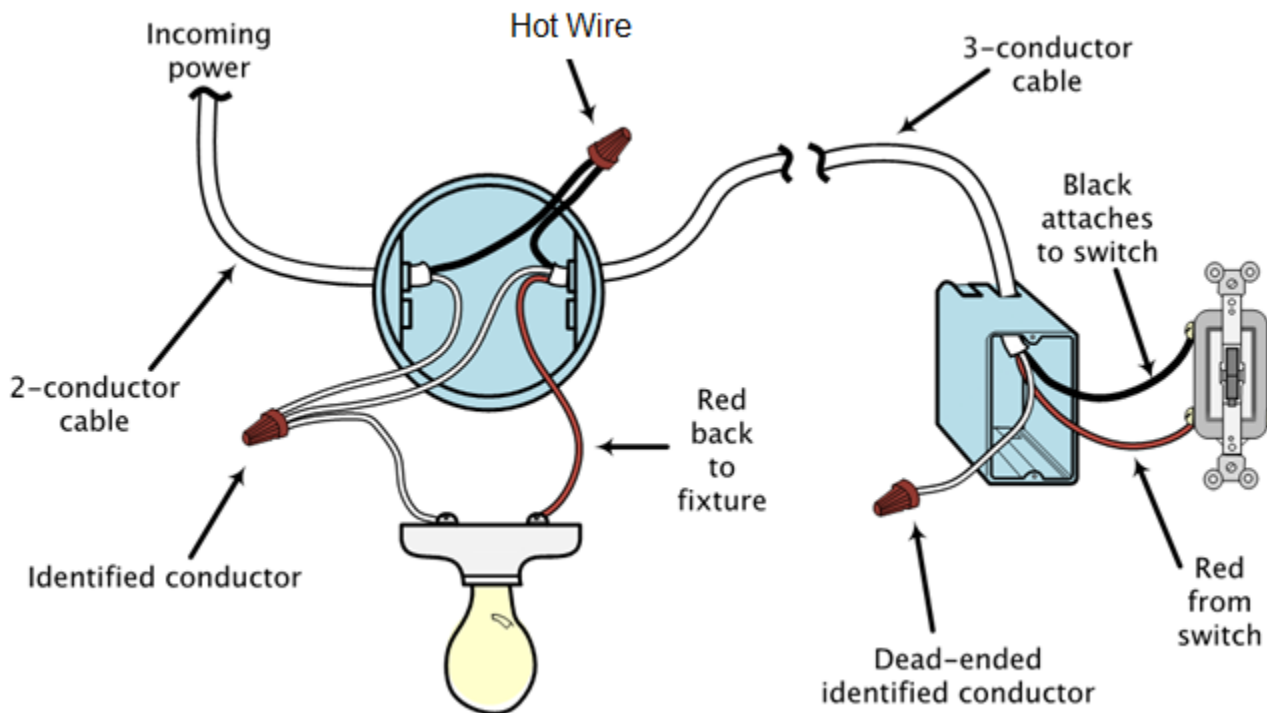
Background

Subrule 4-022 2) of the Ontario Electrical Safety Code requires the identified conductor to be installed at each location of a manual or automatic control device for the control of permanently installed luminaires at a branch circuit outlet.

The provision for identified conductor is to complete a circuit path for electronic lighting control devices such as occupancy sensors and timers.

Although Rule 4-030 2) permits an identified conductor to be used in switch loops and not be identified, Rule 4-022 2) takes precedence. There shall be an unused identified conductor at each outlet box for lighting control device to meet Rule 4-022 2) requirements.

Diagram B1 – sample illustration for a code compliant installation



Note: Bond wire not included in this diagram for simplicity

Direction

For other than dwelling units, where the wiring method to a lighting control switch is a raceway, the identified conductor as required by Rule 4-022 2), can be omitted if the lighting control switch installed does not require the identified conductor

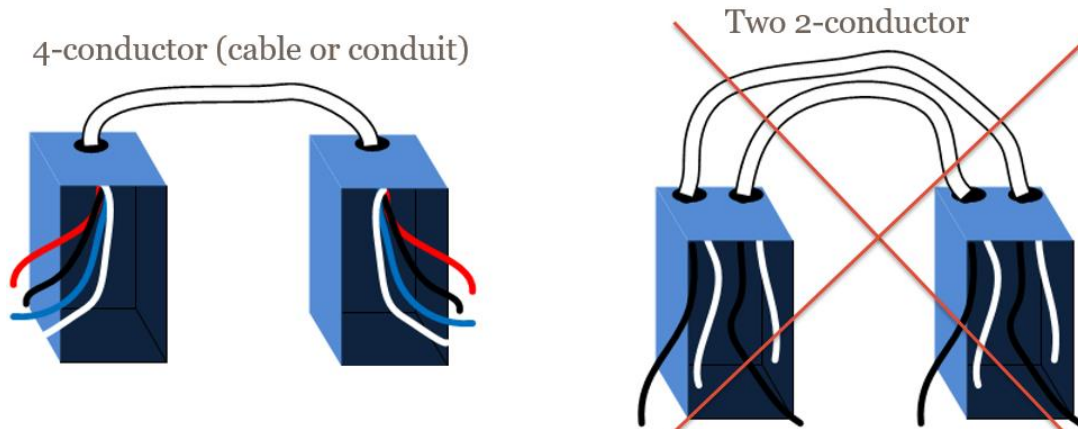
Rationale

Notwithstanding Rule 4-022 2), for other than dwelling units, it shall be permitted where the raceway allows for future installation of the branch circuit identified conductor to the lighting control.

Notes:

1. Where 4-conductors are required, a conduit or 4-conductor cable (such as AC90) must be utilized. Using two 2-conductor cables to simulate a 4-conductor is a violation of Rule 12-106.

Diagram B2 – Where 4-conductor are required for a light



2. For replacement of lighting switches:
 - a. When an existing manual switch is replaced with the same one or with the one that does not have an identified conductor – the identified conductor is NOT required to be installed.
 - b. When an existing manual switch is replaced with the one that has an identified conductor (such as occupancy sensor) – the identified conductor is required to be installed.