

**NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
1202 Mail Service Center, Raleigh, NC 27699-1202
919-647-0001**

Altering Appliance Cords

Code: 2017 Electrical Code
Section: 400.12 and 400.13

Date: June 12, 2018

Question 1:

Does the electrical code prohibit a damaged appliance cord from being repaired?

Answer 1:

No.

Section 400.13 allows for the repair of the flexible cords to be made in accordance with section 110.14(B) for wire sizes 14 AWG and larger. Article 400 does not prohibit wires sizes smaller than 14 AWG from being repaired, section 400.13 simply does not provide additional restrictions on the method.

Question 2:

Can a properly rated and listed attachment plug be installed at any point on an appliance cord?

Answer 2:

Yes if the listing or manufacturer's instructions of the appliance does not prohibit modification to the appliance cord.

The State Electrical Code does not prohibit the modification of flexible cords by altering the original cord with a new attachment plug. Repairing a flexible cord by cutting the cord on the line side of the damage and installing a properly rated and listed attachment plug has been a common practice in North Carolina for decades. However, there is no requirement that the flexible cords must be damaged prior to performing this type of alteration.

Question 3:

Does section 400.12(1) prohibit an appliance cord's attachment plug from being replaced with a properly rated and listed disconnect switch by considering the cord as a substitute for fixed wiring?

Answer 3:

No, unless the installation of the flexible cord violates sections 400.12(2) through (7).

A pendant light has a flexible cord that is "hard wired" to the structure's electrical system; however, the light's flexible cord is not considered a substitute for fixed wiring because the installation of the cord does not violate sections 400.12(2) through (7). Therefore, so long as the appliance cord is installed in accordance with section 400.12(2) through (7), the cord does not violate section 400.12(1).

This interpretation does not override the listing or manufacturer's instructions of the appliance that may prohibit modification to the appliance cord in any manner.

Question 4:

Can a condensate pump be wired to the air handler's internal wiring?

Answer 4:

It depends on the listing and manufacturer's instructions of the air handler.

Because the air handler is the only equipment in this scenario that is connected to the structure's electrical system, from the electrical code's perspective the condensate pump becomes a part of the air handler. In other words, it is an electrical accessory attached and a part of the electrical equipment, similar to the light kit of a ceiling fan. The restrictions for all wiring internally to the air handler is dependent on the listing and manufacturer's instructions of the air handler.