

Re: indoor-type electrical power wiring buried under lawn-- how long will it last?

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Source: <http://sci.tech-archive.net/Archive/sci.electronics.design/2007-02/msg03063.html>

- *From:* Jim Thompson <To-Email-Use-The-Envelope-Icon@xxxxxxxxxxxxxxxxxxx>
 - *Date:* Fri, 16 Feb 2007 17:48:13 -0700
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On Sat, 17 Feb 2007 00:33:08 GMT, ehsjr <ehsjr@xxxxxxxxxxxxxxxxxxx> wrote:

Rob Lucas wrote:

I've just discovered that the previous owner of my house installed a 15 amp circuit feeding the detached garage by burying a standard 14 gauge flexible-metal-conduit cable about 6 inches under the lawn. This is the stuff that has the two plastic coated conductors and an unshielded ground wrapped in a continuous coil of galvanized steel (or is it aluminum?).

Anyway, how many years can I expect before this installation causes me problems? I figure worst case in 20 or 30 years the shielding and ground wire will have rotted away, but the first thing the cable does in the garage is go through a GFI outlet, so realistically it should still be safe even without the ground. How long before the standard plastic coating on the hot wire is deteriorated by the soil? (assuming someone doesn't put a garden shovel through it first!)

I really don't want to dig this whole thing and replace it. Cheers.

The GFCI receptacle in the garage does absolutely nothing to ameliorate the problem. The receptacle can protect from a problem in a device plugged into it, or from a problem downstream of itself. It can do nothing to protect from a problem between itself and the power source.

The only right answer is to replace with new, up to code wiring, or just disconnect (at the house end) and abandon or remove the old stuff. Per the US national code "up to code" with regard to burial depth, means, in general:
Direct burial UF cable without a raceway must be buried at least 24" deep. If you use rigid metallic

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raceway listed for underground installation, it must be buried at least 6". If you use non-metallic raceway you have to go 18". You can reduce that to 12" if you GFCI protect the circuit, and if the circuit is no more than 20 amps.

There are specific locations (for example under driveways) with different rules, per 300.5 in the National Electrical Code

Ed

At last, someone got out the code book.

I was going to do it myself, but I've been trying to digest a nasty-worded contract this afternoon.

So I sent it to my son-in-law ;-)

...Jim Thompson

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I love to cook with wine. Sometimes I even put it in the food.

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