

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

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- *From:* Klaus M. <klaus#m1@xxxxxxxxxxxxxxxxxxxx>
 - *Date:* Sun, 18 Feb 2007 15:26:37 +0100
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On Sun, 18 Feb 2007 14:35:18 +0100, Andrew Edge
<a_n_d_y_e_d_g_e@xxxxxxxxxxxxxxxx> wrote:

On Sat, 17 Feb 2007 00:33:08 GMT, ehsjr <ehsjr@xxxxxxxxxxxxxxxx>
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.

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

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 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

Very crappy

Andy

Hey hey.

Your answer Mr. Edge complies with the Central European directives which may seem crappy compared to the ones given by Mr. Eddy.

Klaus

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