

Re: Battery charging circuit

Source: <http://sci.tech-archive.net/Archive/sci.electronics.components/2004-10/0566.html>

From: Watson A.Name - \ (NOSPAM_at_dslextre.me.com)

Date: 10/24/04

Date: Sun, 24 Oct 2004 07:28:51 -0700

<William P.N. Smith> wrote in message
news:4pfjn05p8553cfonde2h7gpirt90aek10@4ax.com...
> "Watson A.Name - \"Watt Sun, the Dark Remover\""
> <NOSPAM@dslextre.me.com> wrote:
> >We had an electric vehicle "golf cart" at work for a year, and I read
> >the manual for it. They esplained that the three pronged plug had
one
> >pin for the onboard computer to control the charger. This was for a
> >48VDC lead acid system. So the trend today seems to be towards more
> >intelligent chargers, and hence the higher prices.
>
> I've got two 48V Club Car golf carts, and the "intelligence" in the
> charger is the relay on the end of that third pin. The onboard
> computer on the golf cart watches battery voltage and current {into,
> out of} the battery pack, and adjusts the "automatic" charge cycle
> accordingly.
>
> Strangely, the price of these 48V, 20A chargers (transformer,
> half-wave bridge, 'magnetic' ammeter, connectors) is on the order of a
> buck a watt! Unfortunately, the 200A, 12V charger isn't real...
>

Our cart sat for a few weeks w/o being used. We tried to use it, but it was completely dead. The transpo guy got it towed over to his shop, and got a field tech to check it out. Turned out that the battery voltage dropped so low that the 'intelligent' charging system thought that the batteries were disconnected and refused to turn on. All it took was a good charge to get it up and running again. (From an external charger, of course.)

The reason why the damn thing was seldom used was that one couldn't put a computer or monitor in the tiny space in the back where the golf clubs were supposed to go. It had to go on the passenger seat, and even strapping it in with the seat belt wouldn't secure it adequately.