

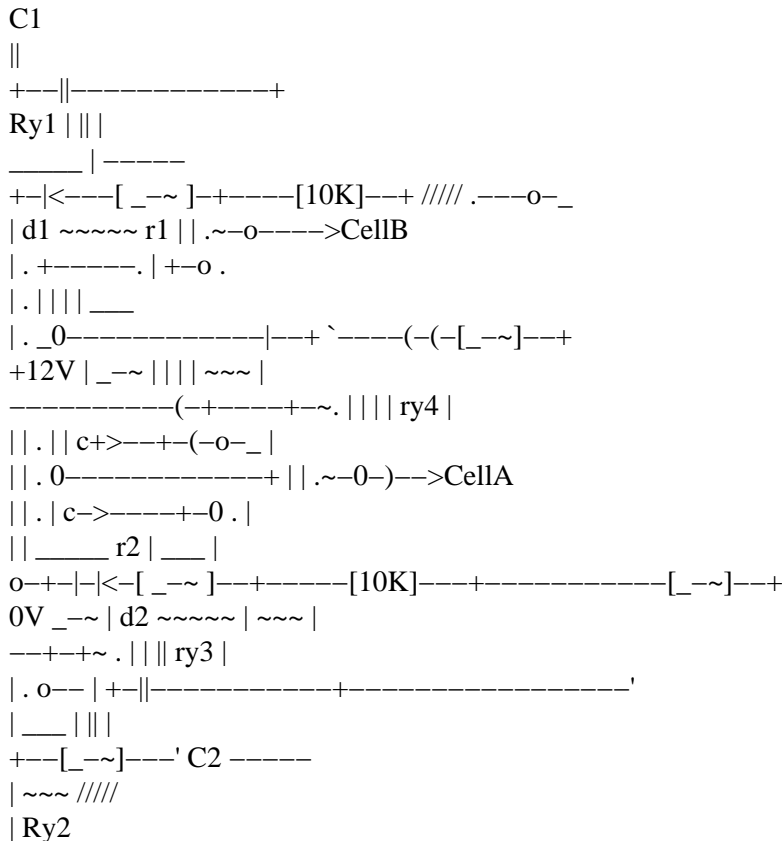
Re: reverse polarity for a pool chlorinator

Source: <http://sci.tech-archive.net/Archive/sci.electronics.misc/2005-12/msg00172.html>

- *From:* Jasen Betts <jasen@xxxxxxxxxxxxxxxxxxxx>
- *Date:* Wed, 28 Dec 2005 07:41:49 -0000

On 2005-12-28, col <iamjustsogood@xxxxxxxxxxxx> wrote:
 > i want to build a polarity reverser circuit that reverses the polarity
 > on my saltwater chlorinator as this keeps the salt cell clean.
 > i want something that changes the polarity every time the clorinator
 > turns on, it is on a timer with the pool filter and runs every day.
 > a new control box for the salt cell costs around \$1400.00. any help
 > would be much appreciated,
 >
 > thanks.
 >
 > colin.

here's one that changes polarity when the power goes off,
 is that acceptable? :)



Re: reverse polarity for a pool chlorinator

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the 12V supply is from a plug pack (wall wart) connected to the same timer than runs the chlorinator (or from the chlorinator's pump output etc) so that it comes on when the chlorinator comes on.

relay 1 (ry1) is a latching relay relay 2 is a regular SPDT relay, ry3 and ry4 are automotive spdt relays rated to handle the current that the chlorinator outputs... automotive horn relays may be suitable.

when the 12V comes on current energises ry2's coil opening the RY2 contacts and through the ry1 contacts energising ry3 and through r2 to begin charging C2

ry3 switches connecting cell terminal A to chlorinator negative, cell terminal B is connected to chlorinator positive via the Ry4 contacts.

C2 continues to charge until full.

when the power is turned off ry3 and ry2 switch off, Ry2's contacts close and the charge stored in C2 flows through ry1's lower coil switching it

next time the power comes on ry2 and ry4 switches on the polarity to the cell is reversed from what it was last time, C1 charges up.

when it goes off it'll switch back the other way.

c1,c2 470UF25V electrolytic
d1,d2 1N4001 or similar rectifier diodes
r1,r2 0.25W 10K ohm resistor.

Bye.
Jasen

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• **References:**

- ◆ **[reverse polarity for a pool chlorinator](#)**

◇ From: col

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