

Re: Can cold weather damage electronics components and circuit boards?

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- *From:* Jim Yanik <[jyanik@xxxxxxxx](mailto:jyanik@xxxxxxxx)>
  - *Date:* 7 Feb 2007 00:04:30 GMT
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"N Cook" <[diverse8@xxxxxxxx](mailto:diverse8@xxxxxxxx)> wrote in [news:eqap3g\\$kul\\$1@xxxxxxxxxxxxxxxxxxxx](mailto:news:eqap3g$kul$1@xxxxxxxxxxxxxxxxxxxx):

Jim Yanik <[jyanik@xxxxxxxx](mailto:jyanik@xxxxxxxx)> wrote in message  
[news:Xns98CEF1FCBED51jyanikkuanet@xxxxxxxxxxxxxxxxxxxx](mailto:news:Xns98CEF1FCBED51jyanikkuanet@xxxxxxxxxxxxxxxxxxxx)

"N Cook" <[diverse8@xxxxxxxx](mailto:diverse8@xxxxxxxx)> wrote in  
[news:eq784m\\$4cc\\$1@xxxxxxxxxxxxxxxxxxxx](mailto:news:eq784m$4cc$1@xxxxxxxxxxxxxxxxxxxx):

wylbur37 <[wylbur37nospam@xxxxxxxx](mailto:wylbur37nospam@xxxxxxxx)> wrote in  
message  
[news:1170676966.914880.48620@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:news:1170676966.914880.48620@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx)

During the winter season, outside  
temperatures can go down to 10  
degrees Fahrenheit or lower.

Since many people carry their laptop  
computers to and from work  
each day, I was wondering whether exposure  
to cold temperatures  
can damage computer components or circuit  
boards.

My guess is that 10 degrees F is probably  
not cold enough to cause  
damage, and that any temperature-related  
damage is probably caused by  
too rapid a change in temperature (cracking  
as a result of expansion  
and contraction).

Am I correct on this?

If 10 degrees F is not cold enough, how cold  
would it have to be for  
damage to occur?

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It is more a question of water condensation on traces and components and even into components via capillary action when the kit is brought indoors to warm air, plus mechanical problems again more to do with condensation

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Diverse Devices, Southampton, England  
electronic hints and repair briefs , schematics/manuals list on <http://home.graffiti.net/diverse:graffiti.net/>

I bet the LCD displays don't like very cold temps.

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Jim Yanik  
jyanik  
at  
kua.net

A common failure mode for numeric display LCDs is bleeding-over so whole areas go "black" rather than just the segments. I've never found out what causes that – freezing ?

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I've seen LCD displays in –hot– temps go black.

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at  
kua.net  
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