Letter Re: How to Convert an Ammo Can into a Faraday Cage

http://www.survivalblog.com/2013/08/letter-re-how-to-convert-an-ammo-can-into-a-faraday-cage.html

Sir: I have some of the larger military surplus ammo cans and would like to build my own Faraday cages to store my spare electronics [to protect them from EMP or a severe solar storm]. Do you have any sources to guide me? OBTW, I just finished reading your novel "Patriots". That was a great read and I could not put it down. Regards,- J.L. (Former NYPD Officer)

JWR Replies: What you plan to do is is pretty simple, since the can and lid are already great Faraday shields. The only issue is the gap where they join. That joint needs to be conductive, in order to create a fully protective cage. I recommend that you:

1.) Remove the can's rubber gasket. (Save it, in case you decide to restore the can to water-tightness, at a later date.)

2.) Wearing eye protection, use some coarse sandpaper or a rotary wire brush to remove the paint on at least a 3-inch section of *both* the top lip of the can and underneath the lid where the gasket was attached. This bare metal will provide a good electrical contact between the lid and body of the can.

3.) Replace the gasket with a continuous thick "fuzz" of stainless steel wool that will just barely allow the lid to to be clamped shut. (Selecting the correct thickness to use takes a bit of experimentation.) The steel wool can be glued

in place so long as you *do not* insulate the short section(s) where you sanded off the paint.

Store items inside wrapped in plastic bags or in heavy duty cling wrap, to insulate them from the can. Use additional padding (bubble pack or gray foam) inside if the cans will be transported loaded with fragile gear.
Do not add an external grounding strap.