

[R-390] R-390A FL-101 Line Filter

Craig Heaton [hamfish at efn.org](mailto:hamfish@efn.org)

Sat May 10 16:39:02 EDT 2014

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All, Not to say which is the correct choice, to filter or not to filter (FL101). Disconnect the antenna; is the receiver quiet? If the receiver is quiet with the antenna disconnected, my money is on RFI via the antenna.

Craig,

-----Original Message-----

From: R-390 [mailto:[r-390-bounces at mailman.qth.net](mailto:r-390-bounces@mailman.qth.net)] On Behalf Of Tisha Hayes

Sent: Saturday, May 10, 2014 11:16 AM

To: R390A

Subject: Re: [R-390] R-390A FL-101 Line Filter

I have been a long-time advocate of replacing the line filter with a higher grade component. What I suggest is;

Corcom 3EHQ1 or 3EHQ3 (Q1 uses lugs, Q3 uses wires). The 3E means the ampere rating of the Corcom filter. You can also go with a 6E (6 amp) filter).

This is a hospital grade filter (letter designator H) , just about the best you can find, exceptionally low leakage current.

Here is an excerpt from the Corcom HQ Series Line Filters pdf; The HQ series power line filters provide the highest available common-mode and differential-mode attenuation to RFI noise in the frequency range from 10kHz to 30MHz, for IEC 60601 and UL2601 patient-connected equipment, as well as all other electronic equipment that cannot tolerate any leakage current. They are a size- and more cost-effective solution to the problem of meeting both medical leakage current limits and conducted emissions limits in equipment with high noise sources (such as switching power supplies).

The 3EHQ filter is rated for 3 A continuous, 10 A peak The 6EHQ filter is rated for 6 A continuous, 18 A peak. Leakage current is less than 2 uA. Waaaaay below anything that will trip a GFCI. Line to ground attenuation is between 44 and 10 dB .5 to 30 MHz Line to line attenuation is between 75 and 60 dB, .5 to 30 MHz

Ask yourself this, the radio was designed in the 1950's where the biggest source of RFI was car ignition systems, maybe the occasional fluorescent light bulb. The RFI sources today are the hundreds of tiny little oscillators in every electronic device in your home, switching power supplies and poorly designed CFL's.

Do you think you need more or less RFI filtering today?

You can get a Corcom 3EHQ or 6EHQ for less than \$40 on eBay. It is your choice.

Ms. Tisha Hayes. AA4HA