

Jan 9th, 2008, 12:30am

Good Evening jjasilli,
you have 0 messages

News:

Welcome to the Hoffman Amplifiers amp forum. Guest can view the forum postings but guest cannot post in the forum until they are a registered member of the forum. After you register, I will review your registration info and then approve your registration personally. You will then be able to log onto the forum and post.
Thanks, Doug Hoffman



[Home](#) | [Help](#) | [Search](#) | [Members](#) | [User CP](#) | [Logout](#) |

Hoffman Amplifiers > Amp stuff > Tube Amp Building - Tweaks - Repairs > Quieting Relays

(Moderators: EL34, da Geezer, tubenit, PRR)

[< Previous topic](#) | [Next topic >](#)

Pages: 1

Reply Notification Add to favorites Send to a friend Print Mark unread

Quieting Relays (Read 105 times)

jhadhar65

Level 3



Offline



"...found the real..."

Posts: 1153
Jacksonville, AR

Quieting Relays

Jan 06th, 2008, 12:01am

Alert Moderator Quote

Relays tend to make noisy audio switches, just like regular mechanical switches. Is there a way to quiet them down some if they're already in an existing design? A cap across it maybe? On second thought, maybe a cap wouldn't work if the relay is an audio switch, huh? Are they quieter as shunt switches or does it even matter?

[Back to top](#)

Email Profile PM WWW Add to Buddy List

IP Logged

amp_mangler

Level 2



Offline

I love tube amps

Posts: 319
Queensland, Australia

Re: Quieting Relays

Reply #1 - Jan 6th, 2008, 12:07am

Alert Moderator Quote

by quieting I hyope ya mean "electrical " noise like a pop in speakers mebbe ?
if so theres an easy fix
firstly ya need a diode (1N4148, 1N914 series) across the relay
that means cathode (black line to positive) PLUS a el-cheapo " greencap " metalized polyester from ratshack, costs around 8 cents
that " snubs " the back EMP that causes the "plop " sound in speakers
if its mechanical clicking ya dont like

TURN UP THE BLOODY AMP 😊
sorry
Joe

[Back to top](#)

Email Profile PM Add to Buddy List

IP Logged

HotBluePlates

Level 4



Offline



Learning the fine points of Thermionic Kung Faux!

Posts: 3796
Charlotte, NC

Re: Quietening Relays
Reply #2 - Jan 6th, 2008, 1:06am

if its mechanical clicking ya dont like
TURN UP THE BLOODY AMP

Joe, I've grown into your sense of humor.

Yeah, if you're talking about the mechanical clicking... well relays are mechanical switches that are electrically controlled. There is no getting rid of the click-clack.

From Principles of Electron Tubes: "... the phase of the output voltage is retarded."

[Back to top](#)

IP Logged

amp_mangler

Level 2



Offline

I love tube amps

Posts: 319
Queensland, Australia

Re: Quietening Relays
Reply #3 - Jan 6th, 2008, 1:38am

thx HBP, there was no offence intended
CRIKEY !!!!!
after all I am a bloody aussie

have bean fer 56 years

perhaps I should add this
aussies tend to use the " australian adjective " rather often
Ill try be better in future

FURTHER to relay clicks, I use " phone " (telephone) relays, they make almost NO audible noise at all, PLUS are rated at " signal " levels
maybe you are using too large a relay ???

Joe

[Back to top](#)

IP Logged

jhadhar65

Level 3



Offline



"...found the real..."

Posts: 1153
Jacksonville, AR

Re: Quietening Relays
Reply #4 - Jan 6th, 2008, 9:47am

No, you guys have it. I'm talking about speaker thumps - I guess they're electrical transients. I'm not worried at all about the mechanical sound of it. If a person can hear that, I agree they need to figure out what that volume knob does and give a twist! What value range do you recommend on that snubber cap?

Good to see you around here again, Joe. I was afraid you might have gotten eaten by a north coast croc or something since I haven't seen your posts in a while. Don't worry about saying anything you want to me. I had an Aussie SAS Warrant Officer neighbor/friend when I was in the Marines and another one was a tactics instructor I had on the east coast. I learned to survive those two characters, so no worries.

[Back to top](#)

IP Logged

JayB

Level 2



Offline

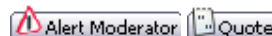


I love tube amps

Posts: 453
Florida

Re: Quieting Relays

Reply #5 - Jan 6th, 2008, 11:15am



You also have to think about any capacitor before the relay that is in the signal path. If there is no ground reference after that capacitor, it will hold a charge when it's not in use. When the relay switches over it's a nice thump in the speaker. I always use the least voltage I can get away with when using relays. Just a bit above minimum helps too. The diode and cap helps also.

You're going to hell faster than Britney Spears running to a Barber shop



Back to top

LooseChange

Level 3



Offline

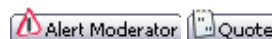


Waxing it up...
Smoothing it down.

Posts: 1379
Vermont

Re: Quieting Relays

Reply #6 - Jan 6th, 2008, 11:56am



Quote:

You also have to think about any capacitor before the relay that is in the signal path. If there is no ground reference after that capacitor, it will hold a charge when it's not in use. When the relay switches over it's a nice thump in the speaker. I always use the least voltage I can get away with when using relays. Just a bit above minimum helps too. The diode and cap helps also.

Yes, and it also helps to have a bleeder resistor to create that ground. Put a 1M or 10M resistor from that point to ground.



Back to top

jhadhar65

Level 3



Offline



"...found the real..."

Posts: 1153
Jacksonville, AR

Re: Quieting Relays

Reply #7 - Jan 6th, 2008, 2:38pm



>...any capacitor before the relay...
>...have a bleeder resistor...

Very good considerations also! I hadn't thought of preceding caps even on switching schemes of my own. How lucky I've been! They would have an effect on any type of following switch element, I'm sure.



Back to top

Pages: 1



< Previous topic | Next topic >

»» Tube Amp Building - Tweaks - Repairs ▾

« Home | < Board

This is the Hoffman Amplifiers tube amp parts catalog, please choose a link below.

Transformers	Pots/Knobs	Chassis	Amp trim/Handles
Board Building Parts	Switches	Tube Sockets	Misc. Hardware
Resistors	Jacks/Plugs	Tubes/Valves	Screws/Nuts/Washers
Capacitors	Dvd's/Books	Foot Pedals	Fuses/Cords/AC
Wire/Cable	Yard Sale	Reverb Items	Lamps/Diodes/Switching

The Tube amp Library of information

Click the link above for Tube amp info, Schematics, Board building information, Projects, Mods, Transformer diagrams, Photo's, Sound clips.

There are hundreds of pages of Tube amp information on my library page.

Hoffman Amplifiers » Powered by YaBB 2.2! YaBB © 2000-2007. All Rights Reserved.