Weird interactions between Boss and single coil/humbuckers..

by **Monotremata** » 31 May 2013, 18:11

Ok so quick background.. My humbucker guitars are my Strat (w/Duncan Distortion) and my std Tele (w/GFS Hot Rail clone). Now my main dirt pedal is an HM-2, and no matter what amp I was playing or where, in order to achieve anything remotely close to unity gain when I turn it on, had to have the volume completely cranked on the pedal. Pepe and Dirk might also remember in the new Boss pedals thread, I started noticing my 'new' BF-2 output was developing some distortion when I turned it on. I still havent taken their advice and tried cleaning the jack with alcohol yet but fast foward to yesterday...

I just replaced my std Tele with a brand new Classic 60s model, which has the stock Fender 'we REALLY love treble' 60s bridge single coil in it. To start all the guitars 'balls' are gone and this guitar doesnt do my post-punk/doom/metal anymore. In fact the pickups output is so weak I cant even overdrive either channel in my AC15 which broke up at like 9:00 with either of my humbucker guitars.. Ok so its a 'vintage' single coil I get it (I wont even talk about how my tone went from fat and heavy to 'stab me in the ear with an icepick' haha).. So Im playing it yesterday and noticed that all of a sudden, the BF-2 doesnt distort anymore. Ok thats weird, but Im not going to complain.. Now I go and turn on the HM-2 and the thing literally blows me away. For the first time EVER I had to turn the level knob down to just above 12:00 and it was unity gain like its supposed to be.

Can someone tell me whats going on here? Is my new Tele possessed or something? I dont get how this weaker single coil, is LOUDER then the rail or humbucker in my other guitars, and at the same time, the distortion is gone from the BF-2.. I think the Distortion is around 11k or so, the GFS was a 15k pickup, and this Fender is only like 6k. Is it possible I have some weird impedance thing going on with the other guitars?? They were already bright enough with the humbuckers so I didnt change any of the pots, theyre still the stock Fender 250ks. The only oddity I can think of between them is the Strat was accidentally wired out of phase (because when I bought it Duncan hadnt added that part in the instructions about 'Oh btw if youre putting this in a Fender reverse the wires' yet), but the GFS was wired correctly and they both require the HM-2 turned all the way up and both make my BF-2 distort (I have the BF-2 before my HM-2 now too to keep the psycho resonance under control when its high gain time).

Im scratching my head here, maybe someone has an idea of what the heck is going on! Time to go fire up the Vox anyways and enjoy my last week of unemployed 'freedom' haha.

Monotremata

Re: Weird interactions between Boss and single coil/humbucke

by **Pepe** » 31 May 2013, 20:25

I never had distortion issues with my BF-2 when I had it and I always have to turn my HM-2's volume knob to only 01:00h. And I also have a single-coil strat only. Maybe it's really an "impedance thing", but I'm a total noob when it comes to this topic.

Pepe

Re: Weird interactions between Boss and single coil/humbucke

by **Pieces Of The Night** » 31 May 2013, 20:38

My ph-1 has a similar thing happening to it. I get a little bit distortion with my strat with Area 54+61 pickups but nothing with my Jem or Les Paul

Pieces Of The Night

Re: Weird interactions between Boss and single coil/humbucke

by **Monotremata** » 31 May 2013, 20:50

Yeah it baffles me as I would think a 'higher output' signal from a humbucker would require me to turn things down but it seems its just the opposite. Maybe with the single coil my Blue Box wont drop so much in volume anymore. Gotta wait for a 1Spot power extension and a couple more patch cables to get it connected though haha.

Maybe its something to do with the particular buffers in these two older MIJ pedals, like your MIJ PH-1. My PH-2, TR-2 and CH-1 are all MIT and none of them have any issues like this whatsoever. My chain is Morley Lil Alligator->PH-2->BF-2->HM-2->Blue Box->Rat->Dunlop Wah->TR-2->CH-1->Line 6 DL-4.. Although at the moment the Rat and Blue Box are not hooked up as I had to move them and dont have longer patch cables to plug them in. For all I know the Lil Alligator could be sending a weird signal that goes crazy when it hits the Boss boxes but yeah it seems its just the two MIJ pedals that have any issues.

Monotremata

Re: Weird interactions between Boss and single coil/humbucke

by **fuzzbuzzfuzz** » 01 Jun 2013, 12:02

Interesting case!

I can only add that I had a PH-1 which distorted too when using ceramic high output humbuckers - drove me mad, I thought it was the pedal!

fuzzbuzzfuzz

Re: Weird interactions between Boss and single coil/humbucke

by **Guga Ramone** » 01 Jun 2013, 16:47

That's it. Using a high output humbuckers you'll have to turn the volume of the distortion pedal up, so it's output can achieve the same output you clean guitar has. Also, the BF-2 is distorting because your guitar has a really high output, so it "overdrives" the BF-2's circuit.

Guga Ramone

Re: Weird interactions between Boss and single coil/humbucke

by **Monotremata** » 01 Jun 2013, 18:46

So Im guessing that somewhere along the line in the late 80s, when companies like Dimarzio and EMG started coming out with the higher output humbuckers, Boss redesigned the buffer stages?? I remember reading something about changing the buffers at Boss Area before but I cant remember which pedal's description it was mentioned in, and from what I recall it was only mentioned on one particular pedal. It might have actually been the BF-2 but I might be confusing the changing of the op-amp.. Almost makes me wish I wouldnt have sold my MIT HM-2 and kept the MIJ haha.
At least for now everythings ok since Im learning to get along with the single coil in the Tele. Just means I have to crank the Vox to 10 (literally) to get the same grind out of it the humbucker had but thats fine with me.

Monotremata

Re: Weird interactions between Boss and single coil/humbucke

by **Laurie** » 01 Jun 2013, 20:09

It is less about the buffers in the BF-2 and more about the BBD. What is happening in the BF-2 is they are operating the BBD near it's limits and the hotter signal clips the BBD.

Laurie

Re: Weird interactions between Boss and single coil/humbucke

by **Franzoni** » 02 Jun 2013, 15:09

Don't understand the science of all this but I had a similar problem with my Boss stuff when I had one of my strats wired to the active Clapton spec.....the OD-2 which is low enough as a overdrive was a nightmare with this guitar dropping in volume when engaged...

I think what your experiencing now is similar to what I had back a few years ago....on the Tele thing it is as you guessed because you are using weaker pickups so when you go from a clean sound the pedal is working correctly and boosting your signal....I think a lot of these active and ultra high pickups are really designed for driving amp channels rather than pedals and a lot of the older pedals like the Boss stuff can't handle the high output....

Also something to remember with Tele's especially 60's models (and possibly the reissues) is a lot of Tele's from that era had 1meg volume pots which give the famous Bakersfield 'icepick' sound....another thing which I wouldn't rule out is the back pickup in your Tele might be gone bad.....I had this exact problem with a couple of practically brand new Tele pickups I bought from a guy who replaced them out of his US 52 Tele reissue.....it was only

afterwards when I put the meter on it i realised the back one was gone open.....a local guy has gone into rewinding pickups so I will probably get him to do a job on it in the near future.....

Franzoni

Re: Weird interactions between Boss and single coil/humbucke

by **Pepe** » 02 Jun 2013, 15:43

> *Franzoni wrote:*
> *...on the Tele thing it is as you guessed because you are using weaker pickups so when you go from a clean sound the pedal is working correctly and boosting your signal...*

Argh! Why didn't I think of this easy explanation! Of course! Because your humbuckers have a higher output signal, you have to turn up the HM-2's volume to make it louder than the clean signal. On the other hand you have to increase your amp's volume to make the Tele match with the volume of the humbuckers, thus making the HM-2's effect horribly loud. And of course this explains why the distortion of the BF-2 has gone. The weaker input signal is more suitable for this pedal.

Pepe

Re: Weird interactions between Boss and single coil/humbucke

by **Franzoni** » 02 Jun 2013, 16:24

It's not as easy as you think Pepe...and an easy one to miss.....

The problem as I see it is a lot of the newer pickups and much higher output than vintage style Single coils or humbuckers...also IMHO some of the older Boss pedals aren't able for this signal so when you go from a cleanish signal and step on the pedal for a boost you get zip...

Also what a lot of guys who use the older boss stuff with newer spec type pickups don't tell you is the pedals have been worked on...for example Pete Townshend uses Clapton strats with the active system but has had his MXR compressor and OD-1 overdrive pedal worked on to take the hotter signal....

Franzoni

Re: Weird interactions between Boss and single coil/humbucke

by **Monotremata** » 04 Jun 2013, 19:13

This makes me wish I still had my MIT HM-2 to compare but oh well. I kinda like the fact that my BF-2 doesnt distort now and my HM-2 works like it should hehe. I think youre right, that higher output humbuckers are really made to hit a distorted amp hard. If youre going to rely on pedals for your sounds, it makes sense you dont need that high output of a pickup since a little box is making your dirt for you. You dont ever see pickup makers talk about using pedals, just about how hot the output is to 'push' things. I found a used LPB1 booster at Guitar Center's website for $25 the other day so Im gonna see if the boost will make up for that singing sustain I need to get. I figure for $25 it was worth a shot. The Vox sounds nice when its turned all the way up but I still want to bring the channel volume back down to about noon instead of 3:00 so Ive got some cleans to play with too. Ill probably just stick it right after the HM-2 and Rat since I dont want the output issue and I dont want the BF-2 crunching. My wah and my newer Boss stuff after the distortion pedals had no problem with that loud level so it should be fine in the chain right there and I can still keep my shrieking Tele tone haha.

Monotremata

Re: Weird interactions between Boss and single coil/humbucke

by **Pepe** » 04 Jun 2013, 19:26

MIJ and MIT HM-2's are technically the same as far as I know. Older MIJ pedals might only sound a bit different due to the components' aging. My MIT HM-2 kicks @$$!

Pepe

Re: Weird interactions between Boss and single coil/humbucke

by **Monotremata** » 04 Jun 2013, 20:12

Yeah I seem to remember also having to crank the level on the MIT too.. I was just digging through Boss Area and noticed, on just about all of the older MIJ and ACA type pedals, they have specs listed for Input Impedance and Recommended Load Impedance. These specs are completely gone on all of the newer MIT/PSA pedals. So looks like Boss did something along the way that mustve accomodated for the newer generation of pickups since they felt they didnt need to even mention these specs anymore. I went through all my pedals on the list and the only two that had those specs were the HM-2 and BF-2. All my newer stuff didnt have it listed.
Granted I already bought the boost, but would some sort of buffer pedal at the beginning of my chain help at all controlling the humbucker guitars?

EDIT: Hmm maybe the boost was a waste of $25 after all. My RATs out of the loop because I need a couple longer cables for where its at on my board, but I just tried it out and man the Tele SINGS and grinds for days through it! No signal trouble, nothing, just pure RAT tone, I didnt even have to crank up the channel volume on the Vox to get feedback going, its got fat output for days! They both sound so similar, Im just so attached to my HM-2 I dont know what I would do without it haha..
Monotremata