

[aca daisy chaining with non boss pedals](#)

by [belafonte](#) » 23 Feb 2013, 20:47

I know you can run ACA pedals daisy chained with a PSA power supply if a PSA pedal is in the chain. Does this work with another 9v pedal but not an actual Boss PSA pedal in the chain too?

Specifically can I power a ACA BF-2B daisy chained with a Maxon cp101 compressor pedal from the 9v output of a Korg Pitchblack tuner?

[belafonte](#)

[Re: aca daisy chaining with non boss pedals](#)

by [natthu](#) » 23 Feb 2013, 23:52

That should work... It should work with any 9V powered pedal.



[natthu](#)

[Re: aca daisy chaining with non boss pedals](#)

by [fuzzbuzzfuzz](#) » 24 Feb 2013, 11:34

Slightly off subject, but belafonte is your CP101 an older vintage TS-808 Tubescreamer type box (with the square footswitch), or the smaller size? Thanks.



[fuzzbuzzfuzz](#)

[Re: aca daisy chaining with non boss pedals](#)

by [belafonte](#) » 24 Feb 2013, 15:52

No, its the smaller reissue version. Its nice though. I play flatwound strings on my bass and it can bring a little more sustain out of them when you want it without adding or taking away much else.

[belafonte](#)

[Re: aca daisy chaining with non boss pedals](#)

by [Pepe](#) » 26 Feb 2013, 23:05

I just set up my pedals for a recording session tonight. I have a BOSS LM-2 (ACA pedal) in the daisy chain and it works properly with a DingoTone FDD (with True Bypass!) in the chain!



[Pepe](#)

[Re: aca daisy chaining with non boss pedals](#)

by [belafonte](#) » 27 Feb 2013, 04:23

Cool. So can anyone explain how the 9v to 12v while daisy chained thing works? I do have some limited electronics knowledge... Seems strange that they take a 9v battery but 12v adapter to begin with.

[belafonte](#)

[Re: aca daisy chaining with non boss pedals](#)

by [natthu](#) » 27 Feb 2013, 07:41

There's an extra resistor in ACA pedals for adaptor power. It brings the internal voltage back down to 9V. Most ACA Boss pedals can be easily modded to accept 9V.

I'm guessing that they did this as it might have been more common to find 12V adaptors back then, or the earlier Roland gear was powered by 12V and they were just keeping it consistent....



[natthu](#)

[Re: aca daisy chaining with non boss pedals](#)

by [sclitheroe](#) » 27 Feb 2013, 21:17

Nah, it was just cheaper to build unregulated power supplies

[sclitheroe](#)

[Re: aca daisy chaining with non boss pedals](#)

by [zombiwoof](#) » 28 Feb 2013, 19:33

The ACA adaptors were not 12 volt adaptors, they were unregulated 9 volt adaptors (they say 9 volts on them), but they actually put out more than 14 volts (at least that's what the two I have read). A regulated 12 volt adapter will work on them, but that's not what the original ACA adaptors were.

AI

[zombiwoof](#)

[Re: aca daisy chaining with non boss pedals](#)

by [Rickey](#) » 16 Mar 2014, 22:53

I just bought a T-Rex Fuel Tank power supply to power my pedals. It has 9V, 12V and 18 V outputs. Would I use the 9V or 12V outputs for my older Boss pedals that specify the ACA adaptor?

[Rickey](#)

[Re: aca daisy chaining with non boss pedals](#)

by [Dirk](#) » 17 Mar 2014, 19:23

I guess you should use the 12V outputs, that's what I could gather from the online manual.



[Dirk](#)

[Re: aca daisy chaining with non boss pedals](#)

by [sclitheroe](#) » 17 Mar 2014, 23:11

Would that be true regardless of whether there was also a PSA pedal in the mix or not?

I know with a PSA in the chain, you can use 9V as it defeats the voltage drop diode on the ACA pedal, but is this an option, or the rule? In other words, what happens if you run the ACA pedal at 12V, and introduce a PSA pedal into the chain? Are you then running the pedal over-voltage?

And how does that affect something like the T-Rex, which is a mixture of common ground (9V) and isolated outputs (12V)?

[sclitheroe](#)

[Re: aca daisy chaining with non boss pedals](#)

by [Clean Channel](#) » 18 Mar 2014, 00:04

Using isolated 12V outputs from a power supply like the T-Rex or a Voodoo Lab PP2+ will work perfectly to power Boss ACA pedals.

You would not daisy chain a PSA pedal from a 12V output because the PSA pedal can't handle the 12V.

On the other hand, you can daisy chain with other ACA pedals, so you can run two or three ACA pedals from one 12V output (or from one of the old Boss adapters) if you want to.



[Clean Channel](#)

[Re: aca daisy chaining with non boss pedals](#)

by [sclitheroe](#) » 18 Mar 2014, 04:36

Correct, you wouldn't daisy chain 12v power between ACA and PSA pedals, but it's the signal chain between ACA and PSA that defeats the voltage drop on the ACA pedal, which is my concern - if you used 12v power for the ACA pedal, and introduced a PSA pedal into the signal chain, I don't know if that would be good.

[sclitheroe](#)

[Re: aca daisy chaining with non boss pedals](#)

by [Clean Channel](#) » 18 Mar 2014, 04:40

I see. If I understand you correctly, you've actually got it wrong. I think you're saying that you believe plugging in various 1/4 inch audio cables do different PSA and ACA pedals has an affect on the power. However, it's not the audio signal chain that defeats the voltage drop in the ACA pedals. Rather, it's when ACA and PSA pedals share the same ground in a daisy chain power supply that causes the component in ACA pedals designed to drop the voltage to be disrupted.



[Clean Channel](#)

[Re: aca daisy chaining with non boss pedals](#)

by [Laurie](#) » 18 Mar 2014, 13:14

Ummm.... actually, it is the audio ground that defeats the ACA components. To defeat the ACA components you need both a common (daisy chain) power supply, plus the pedals patched together. When you plug ACA and PSA pedals in a daisy chain and power them from a daisychain PSA supply, you have the DC return/ground path for the ACA pedals running down the audio patch cables "sleeve".



[Laurie](#)

[Re: aca daisy chaining with non boss pedals](#)

by [Clean Channel](#) » 18 Mar 2014, 13:49

Well, I'll be, I didn't realize that.

So, if I understand correctly, it still doesn't matter since you need both the shared audio path and shared PSA power supply, or am I wrong?

Here's a list of possible power configurations (assuming all are in a signal chain with PSA and ACA pedals), and the outcomes. Tell me if I have this right (it's the third one I'm not sure about anymore):

Chain where:

- All PSA and ACA pedals are being fed either 9V or 12V isolated power = ACA pedals **DO** drop the voltage down to 9V
- PSA and ACA pedals share a 9V PSA power supply = ACA pedals **DO NOT** drop the voltage and get the full 9V
- PSA pedals are powered separately from the ACA pedals, but two or more ACA pedals are daisy chained from the same 12V ACA power = ACA pedals **DO** drop the voltage down to 9V



[Clean Channel](#)

[Re: aca daisy chaining with non boss pedals](#)

by [sclitheroe](#) » 18 Mar 2014, 14:15

Aha! I didn't know the common ground was the other requirement.

So there's 4 permutations, assuming all pedals share the same signal path:

- ACA only pedals on isolated ground 9V supply = insufficient voltage for ACA
- ACA only pedals on isolated ground 12V supply = sufficient voltage for ACA
- ACA and PSA pedals mixed on a common ground 12V supply = overvoltage for both PSA and ACA pedals (since the PSA wants 9V itself, and will also defeat the voltage drop circuit in the ACA pedals)
- ACA and PSA pedals mixed on a common ground 9V supply = sufficient voltage for ACA and PSA pedals

[sclitheroe](#)

[Re: aca daisy chaining with non boss pedals](#)

by [Laurie](#) » 18 Mar 2014, 14:17

Chain where:

-All PSA and ACA pedals are being fed either 9V or 12V isolated power = ACA pedals **DO** drop the voltage down to 9V

If you mean each pedal has it's own isolated supply, then ACA pedals will be powered correctly - the ACA power components will drop the 12V supply voltage to the pedal electronics to "about 9V".

-PSA and ACA pedals share a 9V PSA power supply = ACA pedals **DO NOT** drop the voltage and get the full 9V **ACA pedals will be powered correctly - the ACA power components will be bypassed and the 9V PSA supply will be applied to the pedal electronics.**

-PSA pedals are powered separately from the ACA pedals, but two or more ACA pedals are daisy chained from the same 12V ACA power = ACA pedals **DO** drop the voltage down to 9V

ACA pedals will be powered correctly - the ACA power components will drop the 12V supply voltage to the pedal electronics to "about 9V".



[Laurie](#)

[Re: aca daisy chaining with non boss pedals](#)

by [Laurie](#) » 18 Mar 2014, 14:18

sclitheroe wrote:

Aha! I didn't know the common ground was the other requirement.

So there's 4 permutations, assuming all pedals share the same signal path:

ACA only pedals on isolated ground 9V supply = insufficient voltage for ACA

ACA only pedals on isolated ground 12V supply = sufficient voltage for ACA

ACA and PSA pedals mixed on a common ground 12V supply = overvoltage for both PSA and ACA pedals (since the PSA wants 9V itself, and will also defeat the voltage drop circuit in the ACA pedals)

ACA and PSA pedals mixed on a common ground 9V supply = sufficient voltage for ACA and PSA pedals

Correct.

Plus a 5th and 6th permutation -

PSA only pedals on isolated ground 9V supply = correct voltage for PSA

PSA only pedals on isolated ground 12V supply = overvoltage for PSA (the biggest killer of Boss pedals)



[Laurie](#)

[Re: aca daisy chaining with non boss pedals](#)

by [Clean Channel](#) » 18 Mar 2014, 14:20

Thanks Laurie! Informative as always!



[Clean Channel](#)

[Re: aca daisy chaining with non boss pedals](#)

by [Ricey](#) » 18 Mar 2014, 19:14

Great thread!

[Ricey](#)