Boss SD-2 yellow channel

by **Teleholic** » 08 Jan 2015, 16:42

Hi I'm new here and recently picked up an sd-2..like most I didn't really dig the green channel and was partial to the red channel..A thought struck and I hooked a patch cable to a pot , put it on crunch mode and by turning the pot can access red yellow and green modes! And yes all knobs work in yellow mode! This trick doesn't work in lead or lead/crunch..
And I'm seriously digging this mode.. It's the best of both channels combined, sounds like a boutique smooth medium to hi gain overdrive rather than distortion ! Curious if anyone tried this? Couldn't find anything on the www ..I feel like I just discovered some Nintendo cheat code back in the day

Teleholic

Re: Boss SD-2 yellow channel

by **Pepe** » 08 Jan 2015, 17:26

Welcome to the forum!

That's a neat trick! Never heard of that experiment before. So you used a potentiometer for the remote switch input? I must try that with one of my expression pedals!

Pepe

Re: Boss SD-2 yellow channel

by **Guga Ramone** » 08 Jan 2015, 18:19

Cool! This reminds me of the Marshall Jackhammer pedal, that has two modes and if you put the switch between them, you can use a "third" mode, which is a blend of the other two.

Guga Ramone

Re: Boss SD-2 yellow channel

by **Pepe** » 08 Jan 2015, 18:20

It has? Oh, man... I thought I knew my pedals through and through.

Pepe

Re: Boss SD-2 yellow channel

by **Teleholic** » 08 Jan 2015, 18:21

Hey Pepe, yeah i hooked a patch cable via clips to a potentiometer and used that to switch..Now trying to figure out an elegant way to do the switching but i think it'll be complicated, plus not sure if there'll be a stomp solution..Any experts here have any ideas? I dont mind not being to switch to 3 modes, just red and yellow will good for me..thanks!

Teleholic

Re: Boss SD-2 yellow channel

by **Dirk** » 08 Jan 2015, 18:47

How about using an expression pedal?

That´s basically a foot controlled pot.

Dirk

Re: Boss SD-2 yellow channel

by **Pepe** » 08 Jan 2015, 18:48

I have a distinct red/green colour blindness, so I wasn't able to see a true yellow colour when I tried that with my KORG EXP-2 without actually playing an instrument through it. I just wanted to make a short and simple check of that function. This mode seems to be fiddly to set in, right? The modes didn't switch from red to green in a sudden way, but the colour between these two didn't exactly look yellow to me. But blame my eyes for that!

Pepe

Re: Boss SD-2 yellow channel

by **BearBoy** » 08 Jan 2015, 19:10

Just plugged an FV-500L into the Remote input on my SD-2 and am getting a yellow LED in the Crunch (Remote) mode. The LED remains yellow despite what I do with the pedal though (i.e. doesn't change from green to yellow to red).

Not tried playing anything through it though. Will try later.

BearBoy

Re: Boss SD-2 yellow channel

by **Teleholic** » 08 Jan 2015, 19:30

Dirk, interestingly i stumbled upon this when i plugged my roland ev-5 in..rocking the pedal didn't do it but turning the side vol pot did, but couldn't change to green, so red or yellow only..will need a better more practical idea than the pot idea haha..

Pepe, sorry to hear that..haha what are the odds..anyway you shld be able to hear three pretty distinct tones if its working right..or you could just do what i did, connect a patch cable (or ts wire) and clip to a pot and turn 0 -red 5-yellow 10-green..

Teleholic

Re: Boss SD-2 yellow channel

by **Teleholic** » 08 Jan 2015, 19:43

Bearboy, i see the fv500l has a side pot too..did you try that? my ev-5 wouldn't do anything rocking the pedal but the side vol pot..

Teleholic

Re: Boss SD-2 yellow channel

by **BearBoy** » 08 Jan 2015, 20:04

I didn't but will give it a go.

BearBoy

Re: Boss SD-2 yellow channel

by **Teleholic** » 09 Jan 2015, 09:14

Any experts know how to convert the later 'bright' version to the earlier 'darker' version? Is it as simple as removing C100?

Also , bump for any ideas (stomp if possible) for switching between the three modes thanks!

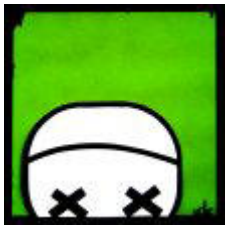
Teleholic

Re: Boss SD-2 yellow channel

by **natthu** » 09 Jan 2015, 09:37

It couldn't be too hard to modify the remote input to allow access to 3 modes from a custom external switch. You could do it with just 2 switches on the external switch box. Might be difficult to wire all that through a cable though, so you'd probably have to add switching circuits of some sort inside the pedal to remotely control it with footswitches (unfortunately that's beyond my knowledge).

If you were prepared to rehouse the SD-2 into a larger box which could facilitate more internally wired footswitches it would be relatively easy to achieve (I reckon even I could manage that).



natthu

Re: Boss SD-2 yellow channel

by **Teleholic** » 09 Jan 2015, 09:54

Natthu, thanks for replying! I really love the boss look though so rehousing is not an option for me..is there a wiring diagram for that first idea you mentioned? THanks!

Teleholic

Re: Boss SD-2 yellow channel

by **BearBoy** » 09 Jan 2015, 09:57

So, had a another quick play about this morning. The "yellow" mode definitely gives a different tone to either of the standard modes and all of the various level/tone/drive controls work.

By adjusting the minimum volume control on the side of my FV-500L I have been able to use the expression pedal to switch between yellow and red modes but have not been able to get all three working. At the moment I get yellow mode with the expression pedal "forward" and then can switch to red mode by leaning back on it. The transfer between modes is sudden (i.e. it does not sort of blend from yellow to red and vice versa).

Quite liked the sound of the yellow mode though from my quick play about with it

BearBoy

Re: Boss SD-2 yellow channel

by **Teleholic** » 09 Jan 2015, 10:07

Bearboy glad you liked it..honestly i would be happy just with the yellow mode but figuring out a way to switch to all 3 would be great..makes this sleeper pedal much more of a sleeper! Not sure why you couldn't switch to all 3 modes, maybe cos my hookup (just a normal vol pot) is much simpler than the wiring of an fv500l?

Teleholic

Re: Boss SD-2 yellow channel

by **charmonder** » 09 Jan 2015, 22:45

amazing find! I've gotta give this a shot

charmonder

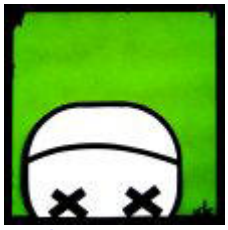
Re: Boss SD-2 yellow channel

by **natthu** » 10 Jan 2015, 00:03

> *Teleholic wrote:*
> *..is there a wiring diagram for that first idea you mentioned? THanks!*

I'm basing what I originally said on my limited general knowledge of Boss circuits.... not on any specific knowledge I have of the SD-2.
I'm not familiar with the SD-2's circuit at all, but I'm sure it could be worked out by someone a little more technically savvy than myself.
If it's a case of simply adding in switches to alternate different resistors (a common mod you can do with some other Boss pedals) I'm sure pretty much anyone could figure it out.

Sorry I'm not of any specific help


natthu

Re: Boss SD-2 yellow channel

by **Teleholic** » 10 Jan 2015, 00:19

No problem natthu, thanks for replying! And another bump for any experts who might know how to wire a switching system like that, plus converting to the earlier 'dark' version specs..Thanks!

Teleholic

Re: Boss SD-2 yellow channel

by **BearBoy** » 10 Jan 2015, 00:27

Thanks for posting it Teleholic. Always liked the SD-2 but had no idea about the yellow mode. Will hopefully get a chance to have a longer play about with it tomorrow.

BearBoy

Re: Boss SD-2 yellow channel

by **charmonder** » 10 Jan 2015, 01:20

first off let me say wow this really made my day! Kudos to Teleholic for discovering yellow mode!

this is a lot of fun you can really tweak it around for a lot of unexpected eq curves and attack response

charmonder

Re: Boss SD-2 yellow channel

by **Pepe** » 10 Jan 2015, 01:36

I tried the yellow mode a few minutes ago. Really not bad! Finally you're able to combine the green and red modes.

Pepe

Re: Boss SD-2 yellow channel

by **DarrinPA** » 10 Jan 2015, 02:16

To those asking about a external switch to access the middle mode: if anybody has a keyboard damper pedal that has 3 positions, it might work. It's not a permanant solution because you's have to hold the pedal halfway down the whole time. But it will show if the 3 channels of the SD-2 channel can be accessed externally or not.

DarrinPA

Re: Boss SD-2 yellow channel

by **trovador** » 10 Jan 2015, 02:17

Hello All. This is my first post. Just wanted to say that I just tried this with an expression pedal. Sounded really cool. Now this pedal has become a triple overdrive!!! Who knew...

trovador

Re: Boss SD-2 yellow channel

by **Pepe** » 10 Jan 2015, 02:35

Welcome to the forum, trovador!

Pepe

Re: Boss SD-2 yellow channel

by **Ptak** » 10 Jan 2015, 04:50

I used my Boss FV-50H and can alternate between Green/Yellow/Red. Cheers.

Ptak

Re: Boss SD-2 yellow channel

by **trovador** » 10 Jan 2015, 05:54

> *Ptak wrote:*
> *I used my Boss FV-50H and can alternate between Green/Yellow/Red. Cheers.*

All 3 with the footpedal?

I have an FV-60 and if I roll the side pot I can switch between the 3 modes but only two are accessible via the footpedal. In other words, depending on where the side knob is, I can switch between the green and yellow OR between the red and yellow with the foot pedal...

trovador

Re: Boss SD-2 yellow channel

by **charmonder** » 10 Jan 2015, 06:46

does anyone else have trouble making the yellow channel fit in context of the red green channels? the best I can do, the yellow channel is about halfish volume as red/green modes. As I'm trying to manage switching options I question the practicality if I cant actually use all 3 modes without touching the level knobs. I think I might even take another SD-2 for yellow mode only.

charmonder

Re: Boss SD-2 yellow channel

by **Teleholic** » 10 Jan 2015, 07:01

np guys glad to share this discovery! honestly i was surprised some expert here hadn't done a crunch to lead channel cascade with 3 position switch drilled on the pedal or something..

charmonder: yes the volume does drop..for me i still don't really dig the green channel that much so what i do is up the green channel vol so yellow will match red mode and the vol diff won't be so obvious when switching between red and yellow (or yellow and green if you prefer the green to red)..

Teleholic

Re: Boss SD-2 yellow channel

by **Laurie** » 10 Jan 2015, 14:12

Q13 and Q11 are the switching FETs for the two dirt modes. Q9 is the switching FET for the bypass signal.

If someone was sufficiently motivated they could hard switch these all "ON" (or just jumper them) and run the outputs into a summing opamp through three pots - giving the ability to infinitely blend all three signals. The pedal would need to be rehoused and 3PDT TB switching wired up... but what a beast with 9 knobs - drive, hi, low, and level for each dirt channel, plus level for the clean!

Laurie

Re: Boss SD-2 yellow channel

by **Teleholic** » 10 Jan 2015, 15:27

hey laurie thanks for the tip! What if i just wanted to switch between channels and not blend? What would i do with Q9 ,11 and 13? THanks!

Teleholic

Re: Boss SD-2 yellow channel

by **Teleholic** » 10 Jan 2015, 15:41

oh and also, since it seems you know your way inside this pedal, do you know how to convert the later bright version to the earlier dark version? Is it as simple as removing c100? Thanks!

Teleholic

Re: Boss SD-2 yellow channel

by **Ptak** » 11 Jan 2015, 04:06

> *trovador wrote:*
> *All 3 with the footpedal?*
>
> *I have an FV-60 and if I roll the side pot I can switch between the 3 modes but only two are accessible via the footpedal. In other words, depending on where the side knob is, I can switch between the green and yellow OR between the red and yellow with the foot pedal...*

Correct, all 3 are accessible.

Ptak

Re: Boss SD-2 yellow channel

by **trovador** » 12 Jan 2015, 23:07

I wonder why is it possible with the FV-50 and not the FV-60.

Anyway, still enjoying this new mode and exploring its possibilities...

trovador

Re: Boss SD-2 yellow channel

by **trovador** » 12 Jan 2015, 23:09

> *Teleholic wrote:*
> *oh and also, since it seems you know your way inside this pedal, do you know how to convert the later bright version to the earlier dark version? Is it as simple as removing c100? Thanks!*

I don't know about this in particular, but there is a different simple mod out there (The Gear Page) that I made with good results:

http://www.thegearpage.net/board/showthread.php?t=620354

trovador

Re: Boss SD-2 yellow channel

by **Ptak** » 13 Jan 2015, 01:53

> *Trovador wrote:*
> *I wonder why is it possible with the FV-50 and not the FV-60.*
>
> *Anyway, still enjoying this new mode and exploring its possibilities...*

I'm using the 2nd output from the left (the 1st output doesn't work) and I have the knob set to zero.

Ptak

Re: Boss SD-2 yellow channel

by **Laurie** » 13 Jan 2015, 03:47

> *Teleholic wrote:*
> *hey laurie thanks for the tip! What if i just wanted to switch between channels and not blend? What would i do with Q9 ,11 and 13? THanks!*

You want to add a "yellow" mode switch - so you can choose red/green/yellow?

Do this AT YOUR OWN RISK... I haven't confirmed it with an actual pedal.

The 4011 chip is delicate - heat and static can kill it. Take care.

Get an SPDT switch.
Lift pin 4 of the 4011 chip. Make sure it is lifted completely away from the board and is waving in the air.
Connect one outside leg of the SPDT to pin 4 (which is now waving in the air and only connected to the SPDT).
Connect the other outside leg of the SPDT to the pad of pin 10 of the 4011 (which is still soldered into the circuit board).
Connect the center leg of the SPDT to pad that pin 4 used to be soldered into.

This should give a pedal that any time "crunch" mode is selected (however it is selected) will give a yellow mode with the SPDT switched one way, and the normal green mode with it switched the other way.

OR

Get an SPDT switch.
Lift pin 10 of the 4011 chip. Make sure it is lifted completely away from the board and is waving in the air.
Connect one outside leg of the SPDT to pin 10 (which is now waving in the air and only connected to the SPDT).
Connect the other outside leg of the SPDT to the pad of pin 4 of the 4011 (which is still soldered into the circuit board).
Connect the center leg of the SPDT to pad that pin 10 used to be soldered into.

This should give a pedal that any time "lead" mode is selected (however it is selected) will give a yellow mode with the SPDT switched one way, and the normal red mode with it switched the other way.

Laurie

Re: Boss SD-2 yellow channel

by **Teleholic** » 13 Jan 2015, 21:21

Thanks for the reply Laurie! That sounds kinda scary the way you describe the chip..wouldn't soldering a ~100k resistor across the remote input tabs and connecting a footswitch do the same thing?

Teleholic

Re: Boss SD-2 yellow channel

by **Laurie** » 13 Jan 2015, 22:29

No. You are relying on the "undefined" switching state of the NAND gates in the 4011. I wouldn't recommend it as a reliable approach.

Laurie

Re: Boss SD-2 yellow channel

by **Teleholic** » 13 Jan 2015, 23:18

Got ye.. time to try out that method you stated above..Thanks!

Teleholic

Re: Boss SD-2 yellow channel

by **Laurie** » 14 Jan 2015, 03:33

If you wanted to get really involved with the mod you could pull the remote jack out and wire in a TRS jack and have an external SPDT stomp switch to kick the yellow mode in.

WARNING if you try this make sure the jack is completely insulated from the pedal body - don't use a jack with a metal sleeve.

Laurie

Re: Boss SD-2 yellow channel

by **Teleholic** » 14 Jan 2015, 08:54

i think the remote jack is a trs jack and the black insulated kind found in boss pedals..so maybe thats half the work there ..

Teleholic

Re: Boss SD-2 yellow channel

by **Guga Ramone** » 14 Jan 2015, 13:48

AFAIK, Boss' jacks have the sleeve conected to the chassis of the pedal. I guess you will have to get one of these (or similar):

Guga Ramone

Re: Boss SD-2 yellow channel

by **Laurie** » 14 Jan 2015, 14:11

Yep

Laurie

Re: Boss SD-2 yellow channel

by **Teleholic** » 14 Jan 2015, 14:19

Thanks for the heads up!

Teleholic

Re: Boss SD-2 yellow channel

by **visserman** » 16 Jan 2015, 13:32

Big, big thank you for Teleholic, he deserves an award for looking into the impossible and unknown, why on earth would you do a hook-up like he described in his first post eh? Anyway, it is very true, the SD-2 can give you three sounds, and because of Tele, we all know about this little secret.

Thanks for our next man in line: Dirk, for be so smart to come up with the suggestion to use a foot controlled pot meter.

Thanks also to Ptak for finding the right volume pedal, the FV-50H: It works like a treat, no need to use any of the in-puts of this volume pedal, just take a patch lead from one of the outputs straight into the remote input and there you go, three glowing LED's depending on the movement of your foot. Great Stuff!!!

Okay back to the real world of making music: How useable are these three sounds and what can be done to overcome any difficulties?

The yellow (I would say amber, but this depends on which part of the world you live.....) led is a lighter form of Crunch compared to the green, standard LED crunch sound.

A good way to listen to the various sounds is: Plug in your guitar, do not play, and access all three sounds and listen to the variation in noise. You will hear the amber LED is lighter in noise, the green LED is fuller while the red LED is the fullest sound.

It helps if you set the controls for LEAD= red LED different to the controls of the Crunch= green LED. The downfall is that the controls for the Crunch sound both control the sound of the amber and green LED, and extra set of LEVEL, TONE and DRIVE controls would help to make all three sounds useable on the spot, but there is not the space on the pedal so.....

Just as a side remark: The Lead sound can make up for a very Mesa Boogie sound: Keep Tone and Drive down, and work with Level to bring up the sound compared to your other sounds. That Mesa sound cannot be found on any other Boss pedals, therefore unique I think.

I agree, the Lead can be quite in your face if you use too much of the Tone and Drive, and it soon looses all its character, but again, there are times you may go for that sound.

I really dig the amber LED sound, it just seems to be just right.

Thanks again Tele for your discoveries, well done man, Cheers!!!

visserman

Re: Boss SD-2 yellow channel

by **Laurie** » 16 Jan 2015, 14:39

Good points visserman, and my apologies for not saying it before now! I was too wound up in the technology. Congratulations to the Teleholic and everyone who found this mode! A remarkable bit of out-of-the-box thinking.

The switching in this pedal is done by a 4011 NAND gate chip. Using the expression pedal allows the NAND gates to be kicked into what is technically an "undefined" mode - when the input voltage is in the grey area between logic "1" and logic "0". It will probably work reliably... but a couple of observations:
- there may be SD-2's out there it won't work on
- it may not be reliable
- a 500k (or "H") expression pedal should work the best - the pull-up resistors for NAND gates are 220k so the voltage division won't work with a low resistance pedal.

Laurie

Re: Boss SD-2 yellow channel

by **Pepe** » 16 Jan 2015, 14:45

Ah, that's why it didn't switch between all three modes with my Roland EV-5 (20kOhm?) or KORG EXP-2 (100kOhm).

Pepe

Re: Boss SD-2 yellow channel

by **Teleholic** » 16 Jan 2015, 23:23

Glad to help everyone out here with this little discovery! Been on a boss quest after messing with 'boutique' stuff and just love the charm of these boxes..I realized the japanese designers were really quite ahead of their time, esp after messing with the unlatch mode on my new vb-2..i love that some boss boxes can be so feature packed! Cheers all!

Teleholic

Re: Boss SD-2 yellow channel

by **Teleholic** » 16 Jan 2015, 23:29

btw, in this thread: viewtopic.php?f=11&t=30&start=420#p27233

can anyone tell what value the resistor on the back of the sd2 pcb is? I tried color coding sites and came up with 105 ohms but i'm not too sure..Basically i'm trying to convert my sd2 to the older spec..anyone knows what c100 (the new added component) does in the circuit? THanks!

Teleholic

Re: Boss SD-2 yellow channel

by **Laurie** » 17 Jan 2015, 23:33

The resistor on the back is 1M Ohms (1,000,000 Ohms).

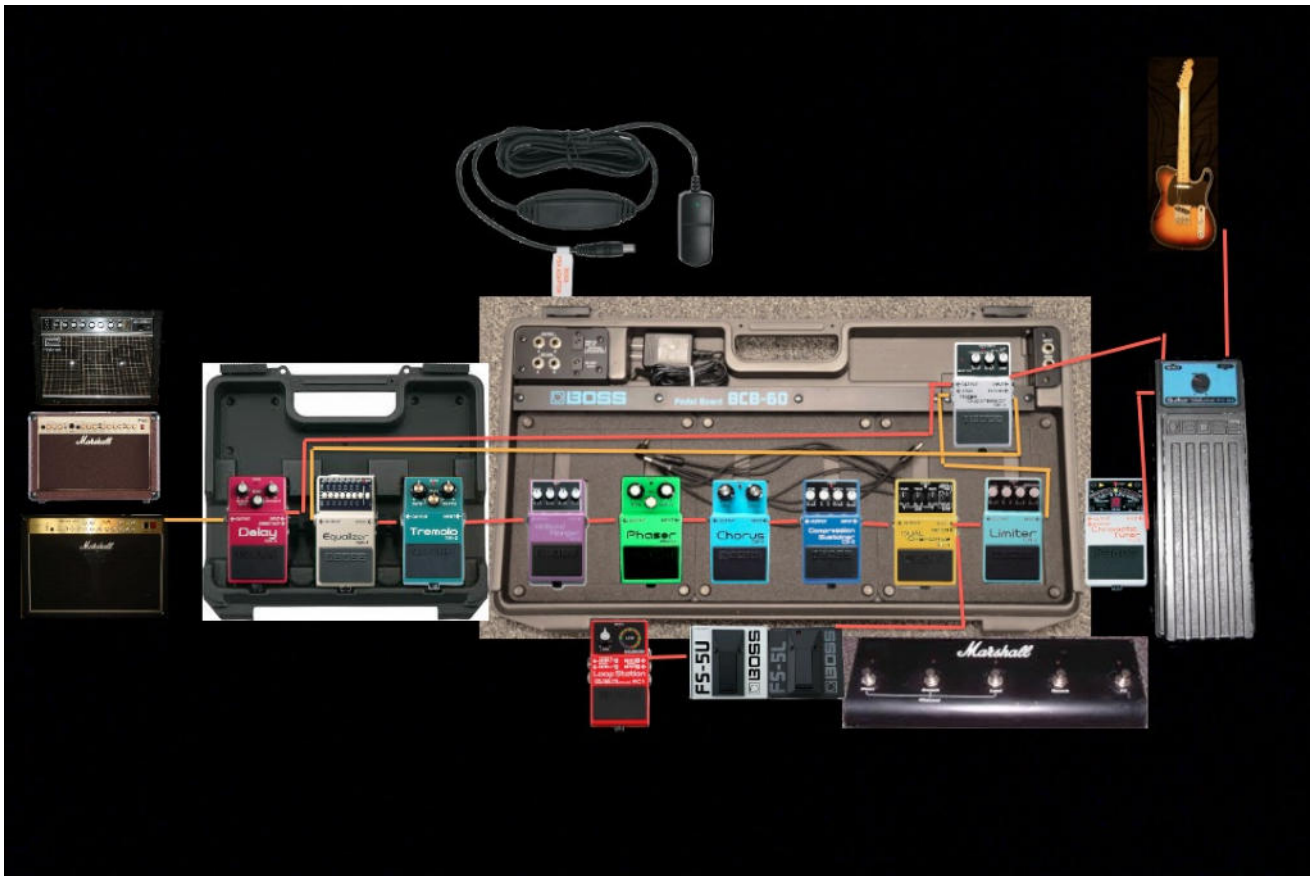
No idea what the cap is for... looks like a 1uF coupling cap for something.

Laurie

Re: Boss SD-2 yellow channel

by **1969atam** » 30 Jan 2015, 15:56

Great pedal, the crunch is a little bit hard but the lead gorgeous. I use it with a remote FS-5L on my main board. This photo is a composite I made on my PC used to plan my pedal rearrangement recently.This is how it looks in real life, almost!



1969atam

Re: Boss SD-2 yellow channel

by **Teleholic** » 30 Jan 2015, 17:25

Sweet! All Boss too..i love the Boss cases but if only they made one like the Behringer PB1000..

Teleholic

Re: Boss SD-2 yellow channel

by **BearBoy** » 30 Jan 2015, 18:39

Wow, your guitar's *really* small

Nice set up though

BearBoy

Re: Boss SD-2 yellow channel

by **1969atam** » 02 Feb 2015, 16:06

I'm new here so I thought I'd show off my pedals!

1969atam