DLS Effects RUSHes custom Boost-Gain-Sustain to Alex Lifeson!

In April 2015, several weeks before the start of the Rush 40th Anniversary tour, Alex Lifeson and guitar tech Scott Appleton asked Dave Sestito of DLS Effects for a custom Boost-Sustain with distortion effect for the tour. Alex knew Sestito and already had the DLS RotoSIM, Ultra Chorus, and Versa Vibe at his studio and really liked them.

Alex and Scott's requirements were to provide boost and sustain without compression, maintain tonal purity, and break over to a nice distortion near maximum gain level. Sestito was a little apprehensive, but agreed to do the project even though it required a product that didn't even exist yet! The request came in on a Thursday, so Sestito told his wife NOT to make any plans and she would probably not see him much over the weekend.

Dave from DLS Effects gives us the rundown: I used the Reckless Driver Overdrive as a platform, because it has a Normal channel that works like a master volume and drives into the Boost channel, a dynamic Bass and Treble EQ section, and switchable Attack for low and high attack.

The first thing I did was increase the headroom of the product by increasing the internal voltage, and used a 12 volt input power supply instead of 9 volts. This along with modifying the gains for the Normal and Boost channels would help prevent opamp clipping when playing hot pickups, or very heavy guitar strumming.

Next, I adjusted the circuit Boost channel so it would break over into Rush like distortion near full gain and volume, plus I cleaned up the Normal channel some. The tricky part was adding some sustain, which I had never done before. For that, I fed back the final stage opamp signal into the previous stage 2 opamp. A carefully selected feedback RC combination was required to prevent oscillation. This circuit added some sustain, but a side benefit was that it **fattened** the sound even further! Alex and Scott commented that it made his guitar sound hotter and fatter!

I made the Sustain circuit switchable in case Alex wanted normalized sound for some songs. I also made the Bass and Treble EQ section switchable, in case he wanted the sound flat with no EQ. By Sunday evening I had completed the circuit modifications and was pretty happy with the sound.

Monday morning guitar tech Scott Appleton asked us to ship overnight, early AM delivery to Rush's practice site in LA using their account. Shortly after, Alex emailed and thanked me for working on it all weekend, which I really appreciated. I kept in touch with Alex and Scott throughout the week about the testing progress, or if they had questions. After testing all week, Alex and Scott gave the thumbs up and snapped a picture from his rig. Alex was using all the features, pretty much maxed out (EQ and Sustain ON, high Attack, Boost channel engaged, Normal and Boost Gains near full)! Alex being a class act, emailed me again and said *the Boost-Sustain-Distortion effect was perfect* and thanked me again for a great effort! Scott said he was using it 60% of the time, especially for leads. The next week I shipped a backup for the tour, plus made a master to keep at DLS.

Alex and Scott invited us to the Buffalo show in June to meet up, see Alex's rig setup, and watch the show which was just fantastic! I could hear when the Boost-Sustain pedal kicked in and pushed Alex Lifeson's leads and heavy rhythms over the top!

I grew up listening to Rush and playing their songs over the years. I never imagined that DLS Effects would be able to work with guitar great Alex Lifeson and help his sound. Alex and Scott are great guys and I would gladly give up another weekend or two to help!

Dave Sestito,
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