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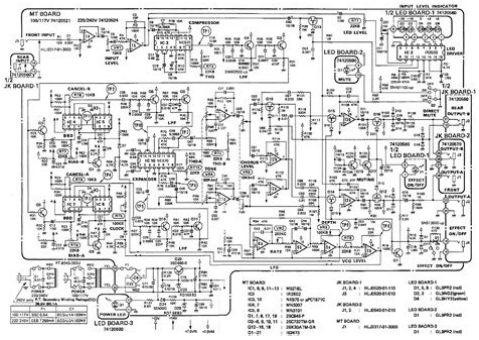

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Nem egysegesen ossze vissza. Nem vagyok jartad a kijelzok mukodeseben, igy minden segitseget elfogadok. Futo fesz 4,7VAC, negativ 27V nem zajos, dimmer mukodik. Elore is koszonom. MNC aktiv melylada Pontosabb megnevezest nem tudok adni mert nincs rajta semmi szam. A vegfok tranzisztorok TIP35, TIP36 ez a resze jelenleg mukodik brumra megy. KH hibakat atforrasztottam, es meg sem mukodik, volt benne egy atkotes amit lebontottam de igy se lett jo. Valami otletet varok. Kesobb tudok majd kepet is felrakni. Similar manuals You can write in English language into the forum not only in Hungarian. Tired of downloading the same vague schematics from yet another website, the copy that is copied ad infinitum on the web. Or did you buy a CD on eBay, full of the same rubbish. Time is money, and especially so for technicians. Time that should be dedicated to repair and not wasted with the frustrations of searching for a decent service manual. So here is a site with only high quality, high resolution service manuals, most of them carefully cleaned, restored and sometimes partially redrawn. Here you will find no unreadable drawings or manuals with crucial pages missing. Here you get what you need for the job and get on with it. Free downloads instead of paying silly money for an email with attachment. Of course hires means large files. They can be up to 8 times the size of a lores scan. That means they need much more server space, space that has to be rented at costs that will come back every year. And many of the manuals you will find here had to be bought as hard copy originals from the manufacturers before they could be scanned at all. Most of this is funded privately, but there is a limit to this budget. Yes, you got it. donations. When this

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It would give repeatable results on the same output though, so once I set the benchmark frequency from the one set of BBDs strangely mine came in at 116k could be error between the DMMs, I adjusted RT5 until I had the same reading. I might play around and see how the audio is actually affected by RT5.They make an audible difference in the smoothness of the BBD signals. With a clock freq of 116K, a 1024stage device like the 3007 with give you about 4.4ms of delay which is bit short for a chorus unit, IMHO.I tweaked the 1M pot so the sweep seemed to bend equally up and down. Then, listening to the outputs again with white noise and the DEPTH and RATE controls set to zero, I could tweak 500K trimmer until it sounded a lot like thruzero flanging. I set the trimmer for the greatest cancellation effect. So, in essence, the two delay lines were virtually identical at rest. Whew!Regarding the aforementioned delay time fix, I think more delay will cure the lack of image width youre hearing. A chorus ought to be more in the range of 10ms or so. You could either bump the clock caps up to 100pf or I suspect change those 100k resistors in the VCO to 33k as is done in the Boss CE2 the very same VCO setup as the CE300 aside from that resistor. I have the headcold thing going on too, but your experiments have nearly got me fired up to do that last mod....PLEASE provide, and I will thank you much in advance and apologize upfront for my slow digestion. Frankly, its nice to know that someone else is moving in the same direction on something and, hey, if youve started blazing that trail before me, I certainly dont mind benefiting from whatever knowledge you feel like sharing! Those are small caps, to say the least!! I firmly believe that your symmetry mod is critical, though. From what I can see of the tris Im getting, theyre not clipping as yours were, but they definitely do NOT look like perfect symmetrical tris.

Im detecting some instabilities in the circuit that, short of aging electros and possibly ill NEs or Op Amps I think the former more probable, I cant account for. Plus, although much quieter than before, I still think the quiescent noise in this beast can be further silenced.I am MUCHO interested in hearing your results, and will likewise keep all posted on my developments! My theory about the VCO resistors didnt play out, so I resorted to increasing the clock caps, C27 and C41. At first I tried 100pf which upped the delay to about 7ms, then I went to 220pf which I find ideal. The clock freqs

are now about 33K, for about 14ms of delay. I didnt have any polysty in that value so I used polypro for the time being.The first example is the dry uneffected sound. FWIW, I dont care for that sound in a chorus.But now it definitely sounds like a CHORUS. Thats with the DEPTH control full CW, so theres lots of room to tame it down. But I really like having all that depth to spare because you never know how it might be useful in a mix somewhere. I slowly raise the DEPTH control, then the RATE control, and then back it down to a reasonable speed.Let me know what your opinions are....Im beat for the day, so its off to take a nap....Sounds like Im going to be on the hunt for some 220pfs myself, as that sounds MUCH better than the stock 300. Way to go, man. If anything, it was adding a nasal quality to my nice fat Obie pads, which is NOT a pleasing addition! The theory seems to have been that the more random differences between the left and right channel, the more likely the ear would pick it up as a stereo image. Most distressing when all of the critical components for a really good chorus quality companding etc. were in the design from the start. Sounds like Im going to be on the hunt for some 220pfs myself, as that sounds MUCH better than the stock 300. Way to go, man! I guess my ears were plugged due to headcold. Ill do some more dialedin samples, hopefully later this week.

BTW, Mousers got 220pf polystys, but I dont know how doable that is for you up there in Canadia Land. Most distressing when all of the critical components for a really good chorus quality companding etc. were in the design from the start. All I know is, I used to see CE300s piled three and four high in the usedgear shops in the late 80s to late 90s. Nobody wanted them, and I didnt either. Even now, there isnt much of a buzz about them on the web, so I figure the lackluster sounds were hearing are not just imagination. OTOH, inside the ugly hag is a hot chick waiting to be set free.... If you mean where physically, it was just an opportunistic thing, wherever they would fit on the trace side of the PCB without threatening to short anywhere. You probably already know this, but overall, decoupling effectiveness is in proportion to the nearness of the cap to the relevant IC pin or whatever. The decouple caps should be right on the IC pin, and if you must have a slight length of lead, its better put the body of the cap nearest the IC pin and use the longer lead for your ground.What I was aiming for was the best spot on the overall bias, ref and cancel circuits I know you need to get it as close as possible to the circuit your decoupling easily spotted with an IC!, but I just wasnt sure of the best spot on those. Sounds like the best place to stick em is on the rail prior to the passive components in the circuits. Will find out soon enough! When I picked mine up, there was some scuttlebutt around on the net that it was a good sub for the DimC, and as I wasnt going to get around to building a clone any time soon, I thought Id take a risk on the 300. It seems so ridiculous that Boss went as far as they did with this design, only to drop the last 1% of the work and lose 90% of the benefit of what they actually did RIGHT in the design. Oh well, keeps this piece of kit affordable for those of us who can tweak them to our benefit!!

However, Im a bit confused about the statementWith those values, you get unity gain at max, but if youre using linelevel siganls like synths, youll almost never need to boost the gain. Also, lowering those values to 10k lowers the input noise a little.Now, if one component of the formula is reduced dramatically R2 from 1M to 10K it should be compensated by increasing the other one C1. At least thats what Ive always done so far while converting highZ input devices to low impedance for studio use.Is it really not necessary, didnt this mod affect the frequency response of the chorus, or you just did not bother to mention it as something too obviousHowever, Im a bit confused about the statementWith those values, you get unity gain at max, but if youre using linelevel siganls like synths, youll almost never need to boost the gain. At least thats what Ive always done so far while converting highZ input devices to low impedance for studio use.If you can read the designation of this resistor correctly or we can all come to consensus as to what to call it, let me know and Ill adopt the correct term. Sorry for any confusion this may have caused and thanks for pointing this out. What would you suggest as the proper value for C1 if R2 were indeed lowered to 10KIf you can read the designation of this resistor correctly or we can all come to consensus as to what to call it, let me

know and Ill adopt the correct term. Sorry for any confusion this may have caused and thanks for pointing this out! Yes, the feedback resistor is actually R3. All clear. BTW, there a site unfortunately in japanese! with similar mod, plus the feedback resistors of outbut buffers are also changed.If the resistance of R2 is reduced 100 times from 1M to 10K the capacity of C1 has to be increased with the same factor from 0.047 to 4.7uF.

Unfortunately capacitors of this range tend to be too large to fit in the original space, unless they are electros and you probably dont want to add electros to the audio path. If you really want to go down to 10K you probably have to go higher with the cap. Some guys have suggested 10.50uF bipolar electros in this scenario.Yes, the feedback resistor is actually R3. All clear. BTW, there a site unfortunately in japanese! with similar mod, plus the feedback resistors of outbut buffers are also changed.Why he would want to increase the output level so much I dont quite get, but thats the beauty of DIY I guess....If the resistance of R2 is reduced 100 times from 1M to 10K the capacity of C1 has to be increased with the same factor from 0.047 to 4.7uF. Unfortunately capacitors of this range tend to be too large to fit in the original space, unless they are electros and you probably dont want to add electros to the audio path. Some guys have suggested 10.50uF bipolar electros in this scenario. FWIW, with opamp linelevel stuff, I wouldnt be too worried about electros in the audio path, especially since were talking about a soundeffect after all. But for the hardcore hifiers, the Panasonic FC series are quite good, and they can also be bypassed with a small film cap. Anyway, for the CE300, the only place Id be very particular about the cap material are those polystys for the clock chips. They really make a difference in the smoothness of the BBD outputs over the stock ceramic caps.All this time Ive been meaning R3, NOT R2 for the input level reduction mod. So, to clarify once and for all, the inputlevel mod spoken of in this thread should be to reduce resistors R4 and R3 to 10K. All my previous posts have now been edited to reflect the correct designation.My bad, and Ill try to be as clear and precise as possible from here out. I hope your mods are going well, and Im sorry again if this mistake caused any trouble....

I hope your mods are going well, and Im sorry again if this mistake caused any trouble....Im waiting on a conclusion here first I really am excited about your progress.I really am excited about your progress. Ill be excited to know what you find when you start working on your CE300 too. Keep us posted....Just in case anybodys in the marketJust in case anybodys in the marketI actually have to purchase some more parts. After Im satisfied with my direction Ill head on over to mouser I should also mention here that the earlier problem I had with the LFO distortion seemed to have disappeared, so I undid all the changes relevant to that. I cant explain why this happened in the first place, though I do have the oscope shots to prove it existed! Attached is a colorcoded schematic. For synthesizers or general linelevel use, R2 can be reduced to 10K for lower input impedance and less noise. To retain low frequency response, C1 should be increased to at least 4.7uF. Thanks Margus for this info! In my case, I used a 4.7uF Panasonic nonpolar electrolytic, along with the original.047 film cap bypassing it on the trace side of the PCB.Also the gainsetting resistors around IC1b dont need to be as high a value as they are, since input buffer IC1a can drive a fairly heavy load. Both R4 and R3 can be changed to 10K, which will give slightly lower noise and unity gain at full CW on the LEVEL control. With those values, a typical synth output should have no problem driving the level meter into the red even at 50% of the LEVEL control. If you want to keep the gain of the stock unit, the input noise still can be lowered by changing R4 to 10K and R3 to about 22K.If you have an oscope make sure the LFO outputs at TP8 and TP9 are as equal as possible before moving to the next mods....Previously they were varying more than a volt in sync with the LFO, but now they were down to a couple hundred millivolts.

Whether this has any effect on the overall sound is open to question, but it does seem like a strange design glitch.The clock caps C27 and C41 can be increased from 47pf to 100pf or even 220pf.The CE300 has a bare minimum of decoupling. On the trace side of the PCB, anything in the range of.1

to 10uF decoupling caps can be added to PS pins of all op amps, compander chips, BBDs, and clocks, as well as the BBD bias, Vref, and Cancel supplies. Some might call this overkill, but heavy PS decoupling always seems to makes opamp circuits sound much smoother and cleaner to my ear.Click on it to enlarge. Well done!!Almost time to put in a parts order, methinks! Be as specific as you like, and Ill try to get something recorded that gives a clear idea of how this thing sounds now.Then I have my repairs, my MKS70, my buddys Arp 2600, my CE. It never ends! The big stuff is just gonna have to wait. Guitar is a great source, as would be a softer pad type sound, that way you can get a sense of how the chorus behaves with swirling sounds as with percussives For reference sake, unless otherwise noted, all examples were done with the controls set at the exact middle of shaded areas on the CE300s front panel.Last is saw wave sans hex chorus with stereo CE300.Second figure, same guitar sound with stereo CE300. Third figure, with stereo CE300, but with controls adjusted for more DEPTH and slower RATE which I prefer for this type of sound.There are actually two tracks mixed together here, both with CE300 set to almost full DEPTH and rather slow RATE.I now understand the argument for increasing the CE300s output levels. This would allow a much better margin of headroom at the critical input, with makeup gain set to a fixed level at the output. And I thought my mods on this thing were finished… a DIYers work is never done!If you click through and buy from our affiliate partners, we earn a small commission.

Did you miss your activation email I used to have one and loved it, but its a rack unit and was a pain to try to integrate into my rig. From the schematic here it looks like two separate delay lines with a compander and expander. Anyone think this could fit onto a pedal sized board I assuming you could get rid of the power section and replace it with a charge pump chip and get rid of all the muting and level metering circuits. I have a humungous monitor at work, but the entire image does not show up on the screen all at once. In an eager attempt to see the modulation arrangements lower right, I nudged the input section upper left offscreen. I also did not trace the paths from the LFO well enough to see there was an inverting stage. So, essentially the CE300 is a tricked out DC2, if I understand it correctly. I can see now why you find it so indispensible. The DC2 was one of the very nicest analog chorus units available for guitar. If its a DC2 you want, Behringer makes a very inexpensive clone although it lacks the wetlevel and tone controls of the CE300. The gutshots I see posted online indicate it is a mix of throughhole and surfacemount components, so it is possible you could mod it to add those features. It does look very similar. It explains why Ive heard the CE300 referred to as the poor mans Dimension though I think thats mostly in reference to the rack version of the Dimension. So do the mode switches on the DC2 just change the depth on the LFO. I wonder if you could mod it easily to use a pot instead. Ill have to check out the Behringer unit has anyone had experience with them. Ive had issues with Behringer reliability in the past… Its not unlike the 4position rotary switch on the Phase 100 that provides two feedback settings for each of two sweep widths. Boss could have probably used a rotary switch as well after all, they did with the Funny Cat and Double Beat but 4 buttons just looks so much sexier than one solitary rotary switch.

Folks more accustomed to multiphase chorus units that use 2 or more BBDs will tend to view continuous controls as largely unnecessary, and a sign of weakness. In addition to the Rate and Depth controls, the Boss CE300 Chorus provides a Chorus Level control to select the desired proportion of chorus effects to the direct sound. Also, by using the Chorus Tone control, any type of chorus effect desired is possiblefrom the popular CE1 type mild chorus effect to one that’s extremely sharpsounding. With unequalled easeofuse and built to extremely high specifications, the Boss CE300 delivers recording quality performance in the studio or onstage. Circuitry features 2 Independent chorus circuits for pitchdeviation chorus effects when the CE300 is used In the stereo mode with 2 amplifiers. In the mono mode. a full sound like that of a multiplex chorus effect is available. For creating many different sounding chorus effects, the Boss CE300 comes equipped with four controls. Rate and Depth controls respectively set the rate and depth of modulation. This creates the well known and well used natural chorus effect as well as producing a spacious sound.

Output jack A should be used when a monaural effect is desired. Remote effects are foot switch controlled from the remote jack.Let others know what you thought of it.These things are pretty well build, sound good on guitar and keyboards. Given their current prices not a bad buy. Can anyone help me locate the part number, or a service manual. Thanks in advance ! Enter your username and leave the password blank. Your email address is optional. Learn more opens in a new window or tab This amount is subject to change until you make payment. For additional information, see the Global Shipping Programme terms and conditions opens in a new window or tab This amount is subject to change until you make payment. If you reside in an EU member state besides UK, import VAT on this purchase is not recoverable.

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Some additional active filtering is applied using SallenKey transistor stages. The effect response is commanded using two controls The top of the board contains all the pads to attach the cables to be connected to the jack connectors, potentiometers, and the footswitch. It also carries other benefits like the number of components used in the pedal and using a light indicator and a poweron LED at the same time. The JFET Bypass Switch enables two possible toggle configurations The VR 3 potentiometer is able to finely trim the 4.5 voltage sometimes due to the loading of all stages, the 4.5 voltage might suffer some offset, the BBDs are sensitive to the bias, adjusting VR3 will bring maximum clean headroom. The 9V regulated line will bring the supply for the Bucket Brigade Stage, rejecting highfrequency harmonics which are especially harmful in BBDs signal processing due to the clocking noise of the MN3101 clock driver. This pedal was originally designed for an external 12V ACA supply adapter. The series resistor R53 and diode D5 between the minus input on the power jack and ground are used to reduce the internal voltage supply. The voltage drop over the resistor and diode will underpower the pedal making the poweron LED glow faintly. One easy solution is to use a daisy chain cable together with another standard pedal. The link between the two pedals will short the resistordiode circuit and the pedal will receive full power. It also separates the guitar from any pedal DC potential, protecting the pickups in case of circuit failure. But applying the same filtering to the delay signal, the output signal will reduce any hiss acquired via the delay path. Boss CE2 uses the opamp inverting architecture. It is also implemented over the 4558 dual opamps and designed to attenuate the magnitude of the high frequencies with respect to the midlow

frequencies. This filter takes the unnatural sounding preemphasized audio and turns it back into its original response.

These are generated at integer multiples of the sample rate. The ideal filter specification is the same as that for the antialiasing filter. In this way, the input signal is bandlimited to prevent aliasing. The cutoff frequency can be calculated as The output signal must be bandlimited, to remove the clock noise and prevent aliasing meaning Fourier coefficients being reconstructed as lowfrequency waves, not as higher frequency aliases. The cutoff frequency can be calculated as After the delay stage, slightly more bass pass through the circuit. At the same time, a LowFrequency Oscillator LFO is needed to drive the MN3101 in order to generate the variable delay time which is the gist of the chorus effect. It is used to discharge the C 22 47pF timing capacitor, which is charged through the R 38 150K resistor. Indeed, Q 5 together with the MN3101 will oscillate by itself at a constant frequency without Q 4 and its associated components. The cycle repeats at an ultrasonic rate. Immediately after C 22 discharge, the diode D1 is needed to isolate the output of Q4 transistor.As the LFO cycles, the delay time goes up and down and therefore the delayed audio pitch slightly shifts up and down. Some ticking can be mixed with the audio when the LFO produces the rising or falling edge of a square wave and there is a very sudden surge in the current. This simple circuit provides a variable frequency triangular waveform whose amplitude is also variable. The oscillation frequency can be calculated following the formula of the Triangle Oscillator by Ron Mancini The action of VR2 will modify the steepness of the ramp and therefore the amplitude or depth at a fixed frequency. Boss CE2 Information by BossArea Chorus Effect Explanation by TestTone Chorus guitar effects by Hobby Hour Tonepad CE2 Cloning Project Triangular Wave Generators by FreeCircuits 3rd Order SallenKey Filter with one OpAmp by EDN. Shelving Filters by Linkwitzlab. Boss ACA and PSA adaptors by StinkFoot.