



DL4 Delay Modeler

Pilot's Handbook

Manuel de pilotage

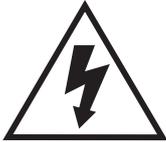
Pilotenhandbuch

Pilotenhandboek

Manual del Piloto

取扱説明書

Important Safety Instructions



CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN



WARNING : TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT REMOVE SCREWS. NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING : TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THE APPLIANCE TO RAIN OR MOISTURE.

CAUTION: This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



The lightning symbol within a triangle means “electrical caution!” It indicates the presence of information about operating voltage and potential risks of electrical shock.



The exclamation point within a triangle means “caution!” Please read the information next to all caution signs.

Please Note:

The Stomp Box Modelers, Modulation Modeler, Delay Modeler, DistortionModeler, Filter Modeler, Line 6, and Line 6 logo are all trademarks of Line 6, Inc. All other product names, trademarks, and artists’ names are the property of their respective owners, which are in no way associated or affiliated with Line 6. Product names, images, and artists’ names are used solely for the purpose of identifying the specific products that were studied during Line 6’s sound model development and describing certain types of tones produced with Line 6’s digital modeling technology. Use of these products, images, trademarks, and artists’ names does not imply any cooperation or endorsement.



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Rugby, Warwickshire, United Kingdom, CV 21 3RQ

26580 Agoura Road,
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SERIAL NO: _____

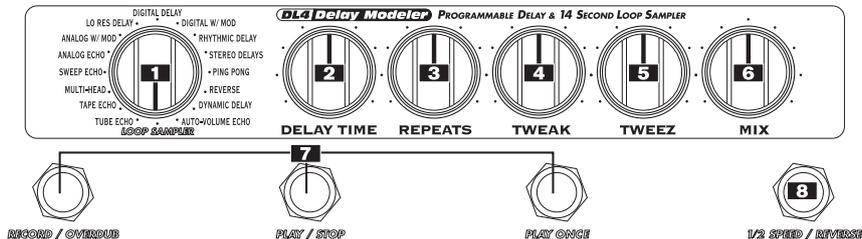


You should read these Important Safety Instructions. Keep these instructions in a safe place



- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- This apparatus shall be connected to a MAINS socket outlet with a protective earthing connection.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- **WARNING:** To reduce the risk of fire or electric shock do not expose this apparatus to rain or moisture.
- The appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
- Connect only to AC power outlets rated: 100/120V 220/240V 50/60Hz (depending on the voltage range of the included power supply).
- Prolonged listening at high volume levels may cause irreparable hearing loss and/or damage. Always be sure to practice "safe listening."
- Service is required when the apparatus has been damaged in any way, such as:
 - power-supply cord or plug is damaged.
 - liquid has been spilled or objects have fallen into the apparatus.
 - the unit has been exposed to rain or moisture.
 - the unit is dropped or the enclosure is damaged.
 - the unit does not operate normally or changes in performance in a significant way.





1. **MODEL SELECTOR** - This is where you pick the model you want to use; it comes up pre-set to a great sound.
2. **DELAY TIME** - Typically sets the amount of delay time. Check the delay model descriptions for more details.
3. **REPEATS** - Typically adjusts the amount of repeats of your delay from one to infinity. Check the delay model descriptions for more details.
4. **TWEAK** - This is a special control unique to individual delay models. Check the delay model descriptions for more details.
5. **TWEEZ** - This is the other special control unique to individual delay models. Check the delay model descriptions for more details.
6. **MIX** - This knob is always used to set the mix between the dry/direct/unprocessed signal and the processed signal. Turn counterclockwise for more dry signal.
7. **STOMP SWITCHES** - For all models except LOOP SAMPLER, these switches choose one of the 3 memories. Step on a switch to get the sound that was stored there. To change what's in a memory, hold one of these switches for 3 seconds: that will store whatever sound you are currently hearing, so you can recall it by pressing that switch.
8. **TAP TEMPO** - Tap this in quarter notes a few times to sync the delay time with your music.

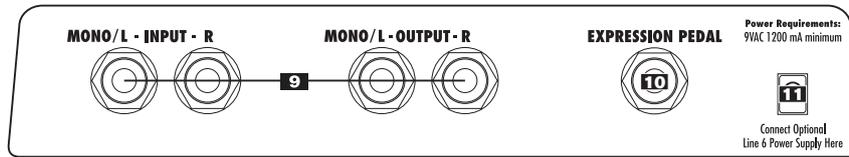
LOOP SAMPLER - Using your switches

RECORD/OVERDUB - Press to start Recording. If you press this switch a second time while recording, the recording will finish, loop playback will immediately begin, and you'll be in Overdub mode. With each pass of recording in overdub mode, the already-recorded sound gets a little quieter, eventually fading away entirely.

PLAY/STOP - Once you've recorded the loop, use this switch to start and stop the loop. From Stop, pressing this starts playback from the beginning of the loop. From Play or Overdub, pressing it stops playback/overdub. You can also step on this switch while Recording to stop the recording and start immediate loop playback.

PLAY ONCE - This switch allows "one shot" playback (the Play Once and Play/Stop lights come on during one shot playback). From Stop, press this switch to play your loop one time and stop. From Record, press Play Once to stop recording and start one shot playback immediately. From Play, this switch will turn on Once mode, meaning the loop will continue playing to the end of the loop and stop. If Play Once is already turned on, pressing this switch will re-trigger the start of the loop. (You can "stutter" with this.) From Overdub, things are the same as from Play: press the switch, and loop playback (and the Overdub) will stop at the end of the loop.

1/2 SPEED/REVERSE - This is a dual function switch. One tap gets you half speed, and a double-tap will give you reverse. You can even use them both at the same time.



9. INPUT/OUTPUT - Just follow the labels and plug in the inputs and outputs. The left input also acts as an on/off switch: the unit will be off if no cable is connected here. When running with batteries, unplug the left input to conserve power when not using the pedal.

10. EXPRESSION PEDAL - The optional Line 6 expression pedal lets your foot control one or more of the parameters of your effect while your hands are busy making music. Operation is designed to be simple: Power off your Stomp Box Modeler by unplugging the LEFT/MONO INPUT. Next, plug in your Expression Pedal, and set the expression pedal to the full heel-down position. Plug the left/mono input back in (this turns the Stomp Box back on) and dial up a sound you like. Now press the expression pedal forward to the fully toe-down position, and set one or more of your knobs to another setting. Rock back and forth on your expression pedal, and you'll hear your sound blend between the two sound settings you just made. Store this sound into one of your pedal's memories, and both the toe-down and heel-down "snapshots" of the sound will be saved. Use as many and whichever knobs you like with the expression pedal, except the model selector. Recalling a stored memory later without the expression pedal connected gives you the heel-down setting only.

11. POWER SUPPLY - You can purchase an optional Line 6 AC power supply to run your pedal or you can choose to power your Stomp Box Modeler with 4 C size batteries. We recommend alkaline batteries for long life. Unplugging the left/mono input turns the pedal off, so be sure to unplug it when you're not using the pedal to conserve battery power. All four lights on your pedal will flash when your batteries have nearly run out.

True Bypass & Alternate Bypass

Stomp Box Modelers include mechanically switching relays that switch in when you bypass the pedal (by kicking the stomp switch to turn off the memory you are using). These relays route your signal directly from input jack to output jack, around all the circuitry, for absolutely no processing or analog-to-digital conversion while in bypass. There's also an alternate bypass mode available that keeps the DSP engaged while bypassed, so with the Delay modeler, for instance, your delays can trail away when you kick the pedal off. If you want this Alternate Bypass mode, hold the first and third (from the left) stomp switches while plugging in the left/mono guitar input. (When the left/mono input is unplugged, your pedal is powered off.) Your pedal will remember to stay in this Alternate Bypass mode until you re-enable True Bypass.

Restoring Factory Presets

The Stomp Box Modelers come pre-programmed with a set of great tones in their memories. The sounds that you save replace these factory settings. If you ever want to recall the factory sounds – and erase the sounds you might have saved – press the far left and far right switches while plugging in the left/mono guitar input. (When the left/mono input is not plugged in, the pedal is powered off.)

Visit us online www.line6.com

Learn more about your DL4 Delay Modeler online. Visit our online discussion group or check www.line6.com/manuals for the latest revision of your DL4 Delay Modeler Pilot's Handbook. While you're online be sure to register your DL4 Delay Modeler or simply fill out and mail us your included registration card. Registering gets you all set up for warranty service should you have an issue with your DL4 Delay Modeler, and also qualifies you for contests, special offers and more.

Tube Echo – based on* Maestro® EP-1

The classic 1963 Maestro® EP-1 was the first of a series of “Echoplex” designs distributed by the company, and made by Harris-Teller in Chicago. As touted in a Maestro advertisement, the Echoplex’s “...special effects range all the way from a controlled high speed reverberation to a full, throbbing echo”! The main feature of the Echoplex design is a special cartridge of looped 1/4” tape that wraps past separate record and playback heads. Your Stomp Box Modeler’s Tube Echo emulates the classic Echoplex tone with the extra advantage of up to 2.5 seconds of delay time. **TWEAK** adjusts the emulated tape’s wow and flutter. **TWEEZ** adjusts “drive,” which is the amount of distortion created by the unit’s tube electronics and tape saturation.



Tape Echo – based on* Maestro® EP-3

After the tube-based EP-1 and EP-2, Maestro® introduced the solid state EP-3, with transistors instead of tubes for the sound electronics. The EP-3 uses the same basic mechanical design as the original Echoplex, including the looped 1/4” tape, but does not have the tube distortion sound of the EP-1. EP-3s contributed to many classic recordings of the 70’s. Eddie Van Halen and Jimmy Page were both avid EP-3 users. Unlike the Tube Echo Model based on the EP-1, which gives you control of wow, flutter and distortion, our EP-3 emulation is designed to give you a less distorted tape emulation with adjustable tone controls. **TWEAK** adjusts bass. **TWEEZ** adjusts treble.



Multi-Head – based on* Roland® RE-101 Space Echo

The Space Echo was Roland®’s first venture into the world of effects processing. Instead of having one movable playback head (like the Echoplex) this machine has multiple stationary heads. You change delay times by switching amongst these heads, and then fine-tune delay time with a motor speed control. The groovy part is that you can play back on multiple heads at the same time to get multi-tap delay effects. The **TWEAK** and **TWEEZ** knobs let you select combinations of the emulated tape heads. **TWEAK** turns heads 1 & 2 on and off. **TWEEZ** turns heads 3 & 4 on and off.



Sweep Echo

This Model is a Line 6 original. Starting with the basic tone of our EP-1 tape delay emulation, we added a sweeping filter effect to the delay repeats to give you unique new creative possibilities for adjusting the tone of your delays. **TWEAK** adjusts the sweep speed. **TWEEZ** adjusts the sweep depth. You can use these controls to create and explore your own shifting landscape of tonal possibilities. With the optional Line 6 expression pedal, you can set things up so that the pedal takes you from no modulation (**TWEEZ** at its minimum value) at the heel-down position to swimming modulation when you pedal forward, so you can bring out the Sweep part of the Sweep Echo for your big solo.



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Analog Echo – based on* the Boss® DM-2

Analog echo units like the DM-2 were designed as improvements over the tape echoes that came before them, using “bucket brigade” electronics to give guitarists echo units that were more reliable than the tape-based delays. Analog delays are treasured for the warm, distorted tones they produce, and are also great for creating more experimental sounds. Try this, for instance: set the **DELAY TIME** at 12 o’clock and **REPEATS** knob to max and play in some guitar, so the delay circuit “overloads.” Now spin the **DELAY TIME** knob quickly to get something like the sound of a space-aged speeding race car imploding on itself. **TWEAK** adjusts bass. **TWEEZ** adjusts treble.



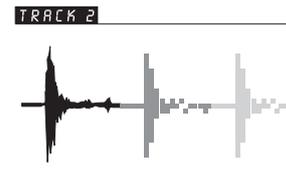
Analog Echo w/ Mod – based on* Electro-Harmonix® Deluxe Memory Man.

This pedal uses the “bucket brigade” electronics of other analog echoes, and adds a chorus circuit. This adjustable chorus is applied to the echoes only, leaving the direct sound unaffected. This popular pedal, with its warm, distorted tone and swimming echoes, became an important tool for many guitarists, and was an essential part of the guitar sounds for the first U2 album. Part of the Deluxe in Deluxe Memoryman was the increased delay time of 500 milliseconds. Your Delay Modeler’s Analog Echo emulates classic Memoryman tone with the added advantage of 2.5 seconds of delay time. **TWEAK** adjusts modulation speed. **TWEEZ** adjusts modulation depth.



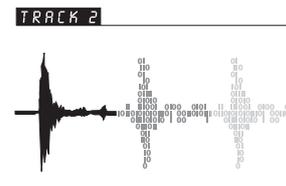
Lo Res Delay

The first digital delay units were introduced in the early 80’s. These pedals and rack boxes took advantage of emerging digital technology to provide guitarists with longer delay times. Unlike the high resolution 24 Bit processing of your Line 6 Delay Modeler, these early digital units generally had only 8 bit resolution. Low bit resolution can create a unique sort of grunge and noise that is sometimes just the sound you’re looking for. Early model digital samplers are sometimes used in modern-day industrial and electronica to achieve these effects. **TWEAK** adjusts tone. **TWEEZ** adjusts digital resolution from 6 to 24 bits.



Digital Delay

This model is a digital delay with bass and treble tone controls. The 24 bit processing and true stereo audio path of the Line 6 Stomp Box Modeler series make it one of the best digital delays you’ll find in a pedal unit. **TWEAK** adjusts bass. **TWEEZ** adjusts treble.



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Digital Delay w/ Mod

Choose this model to add a chorus effect to your digital delays. Like the chorus of the Analog Delay w/ Mod, this modulation is applied to the delay repeats only, leaving your direct sound unaffected. **TWEAK** adjusts modulation speed. **TWEEZ** adjusts modulation depth.

Rhythmic Delay

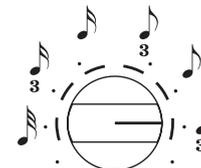
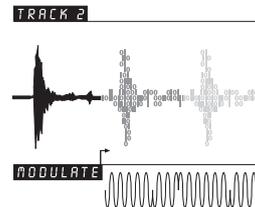
This is a handy place to come when you want a delay that keeps a certain rhythm with your music. Here's the basic idea: you tap quarter notes on the tap tempo switch. Then you turn the **DELAY TIME** knob to set the note value you want for your delay time. You can tap quarter notes, and your clever little Stomp Box Modeler will give you back delays in eighth note triplets – or one of 5 other time values that you choose. Now let's say you want eighth note delays for one section of a piece of music, and eighth note triplets for another passage. Use the optional expression pedal, set it up to control the **DELAY TIME** knob's rhythm settings, and pedal your way to whatever timing suits the musical moment. **TWEAK** adjusts modulation speed. **TWEEZ** adjusts modulation depth.

Stereo Delays

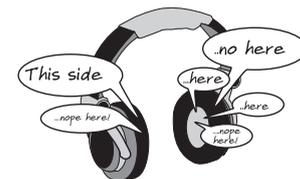
Ever asked yourself, "How did The Edge (U2) get that groovy sound on Where the Streets Have No Name"? Stereo delays, my friend. It's the secret to many a U2 song, as well as the "Big L.A. Solo" sound of the late '80s. Signals that come in the left and right inputs are kept discrete, processed separately, and passed out the left and right outputs separately (for a mono in/out hookup, left and right delays are both sent to the left/mono out). **DELAY TIME** adjusts left channel delay time. **REPEATS** adjusts left channel repeats. **TWEAK** adjusts delay time for your right channel. **TWEEZ** adjusts repeats for your right channel.

Ping Pong

The Ping Pong Delay has two separate channels of delay, with the output of each channel flowing into the other, going back and forth like a game of ping pong. The **DELAY TIME** knob sets the time for the left side delay line, and the **TWEAK** knob sets the time for the right side delay line, as a percentage of the Main Delay Time. Sound too tricky? Just turn **DELAY TIME** to set the longer delay time you hear, and turn **TWEAK** to adjust the shorter delay time. If you set **TWEAK** straight up at 12 o'clock, your left and right delays are evenly spaced. **TWEEZ** adjusts stereo spread (at minimum, signal is mono).



DELAY TIME



Reverse.

!seltaeB eht dna xirdneH imiJ ekil tsuJ – Take a step back in time with your cool new reverse delay. Whatever you play in comes back at you backwards, delayed by the time you set with the **DELAY TIME** knob (1.25 seconds max). To use this little wonder most effectively, try playing a legato lick, ignoring the reverse playback as well as you can. Longer licks can translate into very cool reverse phrases. When using Reverse, try setting **MIX** fully-clockwise (100% wetness) so all you hear is the reversed sound – instant backwards guitar solo fun. **TWEAK** adjusts speed for a modulation of the delay. **TWEEZ** adjusts depth for a modulation of the delay.



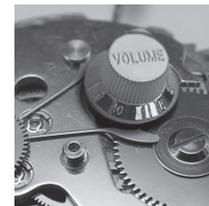
Dynamic Delay – based on* T.C. Electronic® 2290

This effect was made popular by the T.C. Electronic® 2290 Dynamic Digital Delay. This is a sort of “smart” volume control for your delay effect’s echoes, and sets the loudness of the delay echoes based on how hard you play. While you play, the Dynamic Delay keeps the volume of the echoes turned down, so that the echoes don’t overwhelm what you’re doing. Then, when you stop playing for a moment, the volume level of the repeats turns up to allow the echoes to be heard. **TWEAK** sets the threshold – the breakpoint where this automatic volume control stops working and lets the echoes through at full volume. **TWEEZ** adjusts the level of the “ducked” repeats – higher settings will duck the delay level down more.



Auto-Volume Echo.

This model gives you two effects in one. The Auto Volume part of the equation is a volume fade-in swell, like the attack time on a synthesizer’s envelope generator. This can be used for a bowing effect, like the one you get by turning the volume knob on your guitar quickly up from zero just after you pick a note. The other effect is an echo, complete with tape-style wow & flutter modulation. **TWEAK** sets modulation depth. **TWEEZ** sets ramp time for the auto-volume swell.



LOOP SAMPLER

While using the Loop Sampler, the knobs and switches have special functions; true bypass is also disabled. The Loop Sampler remembers the knob positions you set here and recalls them when you come back to it. Your loop can be up to 14 seconds long. (28 seconds at half speed!) We’ve provided you with an echo unit in front of your loop sampler. This echo unit is before the loop sampler, so when you record, you will record the echoes as well. **DELAY TIME** adjusts the pre-loop echo time. **REPEATS** adjusts the number of repeats for the pre-loop echo. **TWEAK** adds modulation for the pre-loop echo. **TWEEZ** is a volume control for the pre-loop echo. **MIX** controls the volume of your Loop Sampler playback.

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Using your LOOP SAMPLER

Turn **TWEEZ** to minimum to turn off the Pre-Loop Echo unit, and set **MIX** straight up. Play a rhythm guitar part. Once you've got a groove, tap the **RECORD/OVERDUB** switch at the downbeat of your measure, record two bars worth of rhythm, and then stomp on **PLAY/STOP** again at the downbeat of what would be the third measure.

Now you can overdub a lead part. Turn up **TWEEZ** to add some echo on your lead; **DELAY TIME** and **REPEATS** control the echoes, and **TWEAK** lets you add some modulation to the echo. **MIX** lets you to turn down the volume of the loop playback. If the loop's not already playing, start loop playback with the **PLAY/STOP** switch, and get a feel for what you want to record. Once you're ready, hit the **RECORD/OVERDUB** switch as the loop plays and go wild for two bars. You can keep the overdub running after the first loop through and record a second layer, for a doubled solo. Hit the **RECORD/OVERDUB** switch at the end of your two bars to turn off overdub, and your loop will keep playing – rhythm plus solo.

Hit the **1/2 SPEED/REVERSE** switch once and you'll hear the whole thing at half speed. Then, double-tap this switch and you'll be playing backwards, and still at half speed. As the loop plays, tap **RECORD/OVERDUB** and lay down some more guitar. Hit **RECORD/OVERDUB** to stop the overdubbing and play the whole shebang, and then double-tap the **1/2 SPEED/REVERSE** switch. Now the loop is playing forward again, and the last part you recorded is backward in relation to everything else. One more tap on **1/2 SPEED/REVERSE** and half speed turns off. You can imagine where a half hour of this kind of thing could get you.

And If That's Not Exciting Enough For You...

You might want to turn the lights down low for this next bit. We're going to record a new loop that highlights the opportunities for sonic experimentation that your new Loop Sampler provides:

From Stop, tap the **1/2 SPEED/REVERSE** switch once to light it and “arm” half speed. Set **DELAY TIME**, **REPEATS**, and **TWEEZ** to 12 o'clock. Mute the strings of your guitar with your left hand, and begin tapping a rhythm quickly on your low strings with your right index finger. Hit **RECORD/OVERDUB** to record some of this, then hit **PLAY/STOP** to finish the recording and start playback. Tap **1/2 SPEED/REVERSE** to turn off half speed – the loop now plays back at twice the speed. Double-tap to put it in Reverse. Tap **RECORD/OVERDUB** while the loop plays and start overdubbing. Drag your pick on the low E string, immediately followed by a note with a strong attack and some sustain. Tap **RECORD/OVERDUB** (stops the overdub and keeps the loop playing) and then double-tap **1/2 SPEED/REVERSE**. Freak out.