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SOULMATE
Acoustic



CONGRATULATIONS

on your purchase of the T-Rex Soulmate Acoustic and welcome to the manual!

The Soulmate Acoustic is an all-in-one preamp, effects unit, looper and D.I. box. It's meant to give you all the needed tools for "plugged in" playing:

- *Impedance switchable FET input buffer/preamp*
- *High speed, high precision tuner with tuning pitch (435-445Hz)*
- *Stereo multi-effect core with compressor, EQ, modulation, delay, reverb and automatic feedback kill*
- *5,8 min. looper with infinite layering*
- *Unbalanced (1/4" jacks) and balanced (XLR) outputs for connecting to mixers, amplifiers, audio interfaces, etc.*

The Soulmate Acoustic can be used right off the bat, but there are a few things you should know, in order to get the most out of it. This manual will go through each "section" of the unit from instrument input to the outputs (in the signal flow direction) so please take a few minutes to get acquainted with the features it has to offer. We will walk you through what everything does, why it does it and what you can do with it. Then it's up to you to decide where to set all those knobs and switches for best sound.

IMPORTANT: Adjusting the unit for proper signal levels, phase and impedance is the first thing you should do, because acoustic instruments differ in tendency to feedback (either when using monitors or amplifiers) and in output levels/impedance. Also, various stage environments (you DO plan on playing for others, right?) can have a pronounced effect on the sound of your instrument - sometimes an unwanted one, and this can be avoided to a large degree by setting everything correctly.

INPUT STAGE

Input gain/peak led:

This analog stage sets the operating conditions for the Soulmate Acoustic. The signal enters the unit, hits a FET-based buffer (it's okay, don't worry. It is just a vitamin pill for the signal) and a volume control called "input gain". This should be set so that the "peak led" on the front does not light up when you play. More importantly, it should be set as high as possible without lighting up the led when you play. Confusing? Relax.

Just play as loud as you expect to be playing and watch the led. When it lights up, back the input gain down until the led no longer lights up.

Phase switch:

This one is a bit special, because it doesn't really do anything, soundwise. Well, nothing that we humans can hear anyway. It is, however, important to use this if you get strange resonances and/or feedback when playing, because then you CAN hear what it does. Consider it a band aid switch for those situations. Often, a loud feedback or an unwanted "coloring" of the sound can be remedied by switching the phase of the signal. This will be most prominent when using onstage monitors or amplifiers.

Impedance switch:

Various pickup systems, microphones and transducers need proper input impedance to sound their best and the impedance switch lets you set this to the most ideal setting for your needs.

We hate to dissappoint you again, but in most cases, this switch also does absolutely nothing. At least not anything we humans can hear. The good part is that if you play an instrument that is particularly picky about this "impedance" nonsense, you WILL hear a difference when pushing it in/out. If you play an instrument that already has an active preamp built in, chances are you will hear no difference. But some pickups on the market will benefit from this, so just A/B it: If IN sounds better than OUT, guess where you should set it?

TUNER

The integrated tuner is a high speed, high precision tuner that takes its signal right after the input stage.

When turned ON, the output of the unit is muted, but the looper will still be able to play back any material recorded (see "looper" section). The display will read out the note name and whether it is flat (left led's) or sharp (right led's). The small dot in the display indicates the "#" in the note names, like G#, F# or C#.

Tuner pitch:

In most cases, your instrument should be tuned to a pitch reference of 440Hz, but in some ensembles, it is a bit lower or higher. For example, some classical orchestras tune to a lower/higher reference pitch.

To change this reference pitch, first turn the tuner on. Then press the small red button on the back panel called "tuner pitch". The led's will blink to indicate that you are calibrating the pitch reference, starting with the two green led's in the middle.

With each press, the button will scroll in a left-to-right fashion through the available frequencies. These are, from left to right: 435Hz, 436Hz, 437Hz, 438Hz, 439Hz, 440Hz (green), 441Hz, 442Hz, 443Hz, 444Hz, 445Hz.

Once the correct led is blinking (like, say, the third led from the left indicating a reference of 437Hz) stop pressing the button and wait for the led to stop blinking. The tuner is then re-calibrated and will allow you to tune your instrument to a concert pitch of 437Hz instead of 440Hz.

(The tuner pitch will be set to 440Hz every time the unit is powered up).

COMPRESSOR

This effect reduces loud peaks in your playing. The great by-product of this is, that the sustain of the notes you play seem to improve. It is effective at making everything you play more equal in volume - you know how strumming with a pick is much louder than when you pick the string with your fingers? -That sort of thing.

The ratio (it's just a tech word that is to a compressor what the Scoville scale is to chilies) is relatively peaceful, so it doesn't squash everything to pieces. It just evens things out and gives what you play a more uniform loudness.

Turn up the "comp" knob for more compression. Compensate for the effect by turning up the "level" knob, so that the output is the same as when the compressor is turned off.

MODULATION

The modulation effect is actually two effects, both aiming at creating width or movement in the sound. The Rate knob adjusts how fast or slow the chorus modulates, but at zero, the effect is morphed into a detuning effect. No, it doesn't make your guitar go out of tune. It creates a slight pitchshifting effect, which resembles two players playing in unison. Some people describe this as a "chorus without movement", and now we do too. It's nice if you think chorus sounds too warbly. Use the depth knob to increase or decrease both effects.

EQ

This is probably the most sound altering tool in the Soulmate Acoustic and also the only one that cannot be bypassed. Why? Because you need the EQ for tweaking the sound of your instrument- it's not an "effect" per se. Players almost always want to add a bit of sparkle, some low-end boost or cut some mids to lessen honkyness (try speaking while pressing on your nostrils – that's honkyness) and for this you need an EQ. If you think your sound is perfect as it is, just set all controls to noon - the EQ will have no effect at all, then. Each "double pot" controls a certain range of frequencies and the affected frequency can be set with the outer knobs for bass, mids and treble, respectively. To boost the frequency range at which the outer knob is set, turn the inner knob past noon. To cut the frequency range, turn it down from the noon position.

The low EQ (bottom knobs) and the high EQ (top knobs) are shelving filters, so all frequencies below/above the chosen frequency is affected by the boosting/cutting. This helps to bring out or subdue these ranges without the need to boost or cut excessively, because you can control more than just a narrow band of frequencies. Obviously, if you turn up the entire low-end part of the frequency spectrum and not just part of it, your ears will hear a dramatic change. Consequently, you can use a more moderate boost.

(It should be noted, that an EQ is useful for reducing or highlighting certain characteristics in the input signal, not for transforming your instrument's pickup system into something it's not. Therefore, the better your instrument sounds by itself, the better the overall sound will be, regardless of EQ settings).

DELAY

The delay effect has been tweaked so that it rolls off the highs just a bit, in order to let the delays "sit" nicely in the mix, as they say. It's meant to provide ambience and space in the sound. For a more "effected" sound, you can turn up the level and tap the tempo on the corresponding footswitch to the beat of the music you're playing. On lower settings, it can create some depth and space around the notes you play without interfering too much. The delay level knob controls the delay loudness, feedback sets the amount of repeats and time determines the delay time.

REVERB

The Hall reverb effect in the Acoustic Soulmate has been carefully chosen for acoustic instruments. In addition to the usual reverb level (loudness) and decay (length of the reverb), we have included a shimmer effect, controlled by the corresponding level knob. The shimmer effect works in tandem with the reverb to create a decay that sounds a bit like a pad sound on a keyboard. By layering multiple octaves of your signal and blending these into the reverb, the resulting sound is...well, shimmer-y. If you really want to get creative with this, plug an expression pedal into the back panel and you then have complete hands-free control over the level of the shimmer.

Inserting an expression pedal will bypass the knob on the front.

The reverb is good for...making it sound like you are playing in a big hall. It sounds almost stupid, but that's the closest we can get. This effect is probably the most used on acoustic instruments, so it's perfectly fine to leave it on all the time. Then you can always add shimmer if you want to take things further.

FEEDBACK KILLER (FB. KILLER)

This little toggle switch is your best friend in case you experience feedback when using an amplifier or a monitor. When you flick it to the "up" position, you just let the instrument go into feedback (replicate the conditions that caused the feedback) and the Soulmate Acoustic will automatically "calculate" where the offending frequencies are and eliminate them, which kills the feedback. It's like having a very small and very efficient soundman at your disposal, who's only job is to kill the feedback so it doesn't interfere with your performance.

Just remember that the FB. Killer can only do it's job if you "feed" it with feedback. So when you activate it, it expects you to generate that feedback, otherwise it won't know "what to remove". If it misses its mark, just turn it off, then on again, and repeat the procedure.

It is a handy tool at soundchecks and in other pre-performance situations.

The FB. Killer can cause a very slight change of sound, due to the very nature of its workings. Battling feedback involves attenuating very specific frequencies that are part of the overall sound, so you can't have one without the other.

(It should be noted that if you boost bass frequencies, play at very loud volumes or stand close to the speaker, feedback is hard to avoid, even when having automatic feedback detection. Using a soundhole plug (if possible), reducing bass frequencies and/or volume or maybe switching the phase are some of the things you should try first).

BOOST

The boost switch and its corresponding level knob on the back of the unit will turn up the output volume by the amount set by the knob. At zero, there is no boost. At maximum, the signal from the effects section (excluding the looper) is boosted appr. 10dB. This allows you to "turn up for solos" without affecting whatever the looper is doing. You can also record audio into the looper that is "one notch louder", to create loop layers with varying levels.

LOOPER

Record, play back, layer sounds, etc. Yes, the looper is a small recording device inside the Acoustic Soulmate that you can use for recording and playing back the recorded material.

We thought it would be a nice feature for singer-songwriters, buskers and other one-man bands, because you have the ability to play over a layered "rhythm" or chord progression, making it sound like two or more people playing.

The looper is post-effects, so any recordings made with effects activated will be kept intact in the looper. Likewise, any phrase already recorded will not be affected by the status of the effects in the unit.

It works a lot like most other recording platforms in pedal format:

Rec/Play:

To record, press REC/PLAY (right led lights up).

To end the recording and start playback, press REC/PLAY again (right led blinks).

To record a new phrase, press REC/PLAY (right led lights up).

This will go round and round in circles if that's all you want to do. Record, play, record, play, record...

The first phrase will determine the length of the "loop" (max. 5,8 min.).

Stop/Clear:

Press STOP/CL to mute the audio playback (when in "playback") or stop the recording (when in "record").

If you stopped a recording, the looper will save what you recorded and pressing the REC/PLAY switch will start yet another recording.

If you stopped a "playback", the looper will go back to the beginning of the loop and pressing the REC/PLAY switch will start "playback" again.

The left led will indicate which mode has been stopped, i.e. it blinks if a playback has been stopped and lights up if a recording has been stopped.

Undo/Redo:

If you have recorded more than one phrase, you can temporarily delete the last one by pressing and holding the REC/PLAY switch. This is nice if you recorded something but made a mistake. Pressing and holding the REC/PLAY switch again will bring the phrase back.

Tip: If you press and hold the REC/PLAY switch while recording, the looper will go straight to "playback" without saving your last recording. If you recorded a mistake and want to have another shot at it, undo'ing while recording will delete that last take you did and go straight to "playback". You then press REC/PLAY to re-do the take (hopefully with no mistakes).

Saving:

If you want to keep your loop(s) intact even if you turn off the power, make sure you are in "stop" mode (left led lights) before you power it off. The looper's current memory is then saved and can be played back the next time the unit is turned on. If you turn off the unit during playback or recording, the memory is cleared and no recordings will be saved.

MASTER VOLUME (VOL. EXP. PEDAL JACK)

For those players that want to use a volume pedal for controlling the overall output of the unit, we incorporated an expression pedal input. This will allow you to turn down the instrument signal while allowing signals from the delay, reverb and the looper to be audible, so that the tails of the effects are kept intact. The looper level remains unchanged, even if you turn the instrument signal down.

Why not just use a volume pedal connected between the Soulmate Acoustic and the amp/P.A.?:

Because you lose the unit's ability to set the input impedance and the compressor (if on) will react differently depending on where the pedal is set. By controlling the volume internally, we get all the good and none of the bad.

OUTPUT CONNECTIONS/CONTROLS

Output connectors :

Two unbalanced 1/4" jacks (left/right) for connecting to amplifiers or unbalanced inputs on mixers, audio interfaces, etc.

Two balanced XLR connectors (left/right) for use with stage boxes, mic inputs on mixers, etc.

Ground lift:

The XLR outputs feature a ground lift switch that is useful if you have excessive hum/noise caused by ground loops. If for example you are using an amplifier on-stage for monitoring (using the unbalanced out(s)) while also being plugged in to the P.A. via the balanced out(s), things can get noisy. Pressing the ground lift switch will break the ground loop and remove the noise. If you can't detect any noise in the setup, leave the switch in the "out" position.

Level OUT:

This knob sets the output level of the entire unit and affects all outputs.



TECHNICAL SPECS

Input impedance	1M ohm/10M ohm, selectable
Output impedance (ohm)	330(xlr), 1,5K(1/4")
Power supply	12VDC, center negative (included)
Minimum	11,5V DC
Maximum	12,5V DC
Current draw @12VDC	560mA max.
Max. input signal	3,5V p-p
Effect processor specs	24-bit, 48KHz, 1ms. latency
Looper specs	24-bit, 46KHz, 32-bit floating point internal processing. Maximum 5,8 min. looping time
External connectors	Input, exp. shimmer, exp. vol, 1/4" outputs (L/R), XLR outputs (L/R), power inlet
Pedal size incl. knobs (WxHxD)	400 x 62 x 148 mm / 15,75 x 2,44 x 5,83 inch
Weight excl. packaging	2 kg / 4.4 lb

T-Rex warranty conditions

T-Rex offers a 2-year warranty on all our products. In the unlikely event of a malfunction, please contact our technical support at service@t-rex-effects.com before sending us the product for repair. Read more about warranty conditions at www.t-rex-effects.com/service

About T-Rex

Based in Vejle, Denmark, T-Rex Engineering makes classic and signature effects pedals for the world's best musicians. Our approach blends hi-tech innovation with old-world craftsmanship – always in the service of killer tone.

EU regulations • Environment protection

T-Rex accepts and follows the regulations and directives issued by the EU. We find these environment protecting regulations very good, and we are happy to follow them.



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