

EXPERT REVIEW: TECH 21 ACOUSTIC FLY RIG

By Phil O'Keefe | February 26, 2018

Tech 21 Acoustic Fly Rig

Is this the perfect travel companion for your acoustic-electric instrument?

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Travel light and take up as little space as possible without giving up any of the essential effects that you need in order to deliver a professional, polished-sounding performance - either live, or in the studio. That's the basic philosophy behind Tech 21's series of "Fly Rigs" - think of them as miniature pedalboards or multi effects units that pack a ton of features into an impressively small space that's easy to take with you wherever you go. The new Acoustic Fly Rig is a great example. How small is it, and what sorts of features and effects does it have? Let's take a closer look and find out.



What You Need To Know

- The Tech 21 Acoustic Fly Rig was designed and built in the USA specifically to complement acoustic instruments. While most people will probably use it with an acoustic-electric guitar, it's equally well suited for use with other acoustic-electric instruments such as mandolin and acoustic bass guitar.

- The Tech 21 Acoustic Fly Rig is super-small, especially considering all that it can do. It measures only 12.5" W x 2.5" D x 1.25" H, and weighs only 20.7 ounces, so not only will it easily fit into the accessory pocket of many cases and gig bags, it's light enough that you may not even notice it's there.
- Just because it's small and light, that doesn't mean that Tech 21 skimped on the build quality. The Acoustic Fly Rig's housing is all-metal and feels rugged and road-worthy. The unit is orange with white graphics, and the lettering for all of the controls is white but outlined in black, which makes it easier to see.
- Power is supplied from an included 9V 200mA DC power supply. The power supply is auto-switching and self-adjusting for 100V-240V operation, which means it can be used anywhere in the world with the proper travel adapter for the country you're visiting. The plug part of the power supply is removable, and adapters for various countries (included) can be quickly swapped in and out.
- The metal 1/4" input and output jacks are located on the rear of the pedal, along with the industry standard 2.1 mm center-negative jack for the power supply plug. The input impedance is 1megOhm, while the unbalanced 1/4" "universal output" is low impedance and can be connected to other effects pedals or directly to a high impedance amp input, or a low impedance input on a mixing console or audio interface.



- Need to feed the house PA instead of an acoustic amp? That's no problem with the Acoustic Fly Rig's built-in XLR output. There's even a ground lift switch to deal with any hum issues you might run into. The XLR output is located on the left hand side of the Acoustic Fly Rig.



- Tech 21's famous SansAmp is at the heart of the Acoustic Fly Rig. This all-analog circuitry emulates the sound of an amplifier with impressive accuracy, and allows you to run direct to the PA live or recording console or audio interface in the studio without the need of an amp or direct box.
- The Acoustic Fly Rig can also be used as a preamp and effects pedal placed in "front" of your guitar or bass amp, or plugged into the amp's effect loop return jack to bypass the amp's preamp and use the SansAmp preamp instead.
- Let's take a look at the signal path of the Acoustic Fly Rig. The first thing is a Phase Flip switch, which allows you to invert the signal polarity. When the switch is in the out position the output is in phase with the input signal, and depressing the switch flips it. This can be useful for helping to reduce feedback and for making sure your pickup is in phase with your mic, if you also use a mic simultaneously with your instrument's onboard pickup.
- Next up is the Acoustic Fly Rig's Comp section. This features a fast FET compressor circuit. Dialing it up is really easy - just turn up the Comp control until you hear the amount of compression you want, and then adjust the Level control to compensate for any signal level drop that results from the compression. There is a wide range of compression available, from subtle to heavy squash.
- There is a dedicated "footswitch" (actually a "silent-switching custom actuator" - one of the five found on the Acoustic Fly Rig) for the Comp section, allowing you to, if you'll pardon the expression, easily turn it on or off on the fly.
- The Acoustic Fly Rig uses buffered bypass switching, and has no problem driving longer cable runs, even when bypassed.
- Next in the signal path comes the Boost section. This also has a dedicated footswitch as well as a Level control. Up to 12 dB of boost is available. Need a quick boost in volume for a solo? This is ideal for exactly that purpose.
- After the boost comes the SansAmp section of the pedal. Instead of a footswitch, a pushbutton switch turns this section on and off. In addition to a Volume control, you get extensive collection of very useful EQ controls, with a Notch filter (complete with its own pushbutton on/off switch) that's sweepable from 70 Hz - 350 Hz to help kill resonances that can lead to feedback, Low and High EQ controls (with +/- 18 dB of boost or cut), a semi-parametric Midrange with Mid (+/- 15 dB) and Mid-Shift (mid frequency, sweepable from 150 Hz - 3.2 kHz) controls, and finally a low pass filter (LPF) that is sweepable from 1.5 kHz - 20 kHz for filtering out the brittle high frequencies that some acoustic pickups give you too much of.
- Now that you've got your tone dialed up, the next section of the Acoustic Fly Rig is designed to let you add some effects to polish things up. The Reverb comes first, and it has its own dedicated footswitch for bypassing it, as well as a single knob for setting the amount. A pushbutton switch allows you to select between a small room reverb or a large hall effect.
- The dual purpose DLA/CH section rounds out the effects. It has its own on/off footswitch, and a pushbutton switch to select between Delay and Chorus. There are two knobs that work only when the Delay mode is selected - Time and Repeats. Time adjusts the delay time (with a range of 1ms - 750ms; 200ms when the knob is at noon), while Repeats sets the number of echoes, from a single repeat to nearly infinite repetitions.
- An E. Level knob sets the amount of effects in the mix, and works with both the Delay and Chorus. A red LED under the knob also serves as a clipping indicator to assist you in properly gain staging your setup.
- Both Time and Repeat knobs are disabled when the Chorus mode is selected. The chorus in the Acoustic Fly Rig is more of a pitch detuned doubling effect as opposed to a modulated chorus.
- The Delay / Chorus and Reverb are mixed in parallel internally and sent to the outputs.
- An onboard chromatic tuner can be accessed by hitting and holding the Tap / Tuner footswitch for a moment. In tuner mode the outputs are muted. A small display indicates the current note and illuminates up/down arrows to let you know if you're flat or sharp, and a green indicator in between them lights up to let you know when you're in tune. Tapping the Tap / Tuner button again exits tuner mode and turns the outputs back on.



- Finally, for those who would like to practice using headphones, a pushbutton switch engages a headphone mode that changes the output level of the 1/4" output jack so it can more easily drive headphones, and sends the signal to both sides of your stereo headset.
- All of the knobs on the Acoustic Fly Rig are clear with easy to see black position indicators, and the knobs are illuminated from beneath when the corresponding section of the pedal is active. Even cooler, they're color-coded, with yellow lights for the compressor section knobs, and red for the Boost and SansAmp sections - except for the crucial Volume knob, which is lit up in Lavender to make it easier to find in a hurry - a nice touch. Blue is used for the knobs in the Effects section, with a second, red LED under the E. Level knob that lights up whenever you tap on the Tap Tempo switch, giving you visual feedback - another really nice touch, although it's a bit harder to see when the Effect section is active and the blue lamps are lit.



Limitations

- The knobs are fairly close together and those with larger fingers may find them a bit tricky to adjust. Those with average sized hands should have no problems. Small, closely spaced knobs are a practical compromise that was obviously made with the intention of keeping the Acoustic Fly Rig as small as possible, and probably won't be a major issue for most users.
- The Chorus and Delay effects are either / or; you can't use them together simultaneously.

Conclusions

I am impressed with how many features Tech 21 managed to cram into the diminutive Acoustic Fly Rig, from the useful compressor and boost to the preamp and extremely comprehensive EQ section (which is often essential for dialing up a great amplified acoustic tone) and the polished sounding reverb, delay and detuned chorus effects, it really does come with all of the essentials that you'd want in a acoustic preamp / mini-multieffects unit. Add in problem solvers like the notch filter and tuner, and it's even more useful. Plus, it works well with a variety of acoustic instruments, and not just guitars.

I also really like the illuminated, color-coded knobs since they make it easy to see the control settings and what's active with just a glance. While the knobs themselves may be a little close together for people with huge hands, it's really not that bad. The Tech 21 Acoustic Fly Rig puts the functions of multiple pedals into a tiny enclosure for the sake of mobility, but it's not so tiny that people are going to struggle to use it. Compared to what individual tuner, compression, boost, preamp and effects pedals would cost, it's quite a bargain too. If you play an acoustic-electric instrument, whether in recording studios, at open-mic nights, at church, or any other live venue, you really should try out the Acoustic Fly Rig. It has all the features you need to dial up the sound the way you like it, and it's small enough that you'll never have to leave it behind.

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Want to discuss the Tech 21 Acoustic Fly Rig or have questions or comments about this review? Then head over to [this thread in the Acoustic Guitar forum](#) right here on Harmony Central and join the discussion!

Resources

Tech 21 Acoustic Fly Rig multi-effects pedal (\$425.00 MSRP, \$299.00 "street")

Tech 21's [product web page](#)

You can purchase the Tech 21 Acoustic Fly Rig from:

[Sweetwater](#)