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# Guitar

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Price: **\$489**

The volume pedal, the original guitar effect, has been around since the '30s. Now, with quality pots hard to find, an electronic pedal shows the way forward. Review by Rick Batey

# Telonic

## FP-100 Volume Pedal

Some of the most interesting leaps in guitar and audio design happen when people bring in expertise from different areas. Paul Bigsby with his motorcycle know-how; Leo Fender with his radio knowledge; Ovation's Charles Kaman with his helicopter blade technology... the examples are endless.

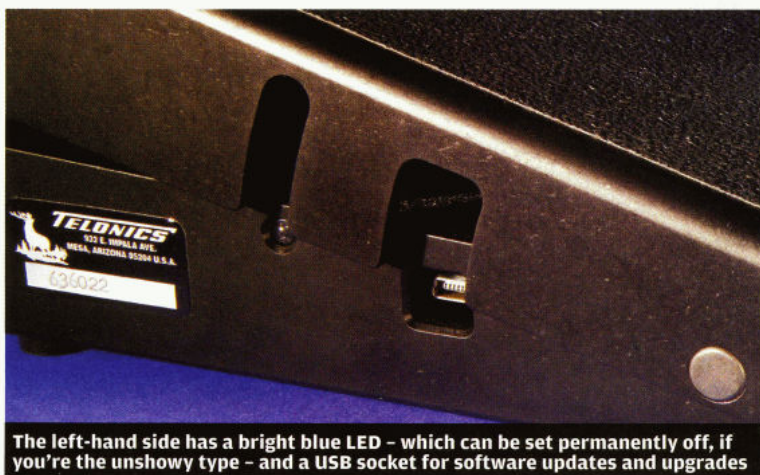
Since the 1970s, Dave Beaty's Arizona-based company Telonics has been a world leader in building transmitters for feeding back information from whales, polar bears, eagles and any other finned, furry or feathery thing you can think of. Wildlife tracking demands lightweight, reliable, efficient electronics, and now Beaty – a lifelong musician who started building amps in the '60s – is directing his know-how into preamps, volume pedals and, in the future, combos, speaker systems and more.

The Telonics FP-100 – available only from the US, but worldwide mains capability is no problem – is aimed primarily at steel guitar players, but that doesn't mean regular guitarists can't use one. Though the FP-100 is electronic, it isn't digital. Inside is a high-headroom, fully-buffered preamp built purely with tone in mind. It works not by an LED light, nor a laser scanner: instead, the pedal's sensors literally compare the angles of the top and bottom halves.

The second unique selling point of this pedal is that it has not one audio taper, but five. A digital switch on the side instructs the FP-100 to adopt the distinct audio curves of the famous (and long discontinued) Allen-Bradley pot, a Clarostat pot, early- and late-model versions of the current and well-regarded Hilton digital volume pedal and the vintage Goodrich 'light beam' unit. The USB port on the left will allow the factory to download other tapers and updates in the future, such as 'tone roll-off' tapers, imitating the way in which traditional audio pots bleed off highs as volume is reduced – a characteristic some players prefer. Three 'blank' switch settings allow new tapers to be



One input, two identical outputs, a socket for a tuner or remote controller, a digital preset selector and mini-pots for impedance and 'minimum on' settings



The left-hand side has a bright blue LED – which can be set permanently off, if you're the unshowy type – and a USB socket for software updates and upgrades

### The Telonics FP-100 is aimed at pedal steel players, but it could open new doors for forward-thinking guitarists

added, while setting 0 is a programming position. You can adjust the treadle's drag anywhere from super-light to stiff, and tweak the return spring to make sure the pedal stays where it is when you remove your foot. Crucially, you can also adjust the 'minimum volume' level to give silence or any amount of signal you choose with the pedal in the

heel-down position. Because the FP-100 remembers this setting on a Flash card, you can program a different minimum volume level for each taper.

On the right there's a single input (which will automatically configure the internal preamp for balanced and unbalanced applications) and two outputs for running up to two amps

#### FACTFILE

##### FP-100

**Description:** Electronic volume foot control with multi-taper capability

**RRP:** \$489

**Right side:** 'Minimum on' micro-screw; Input Impedance micro-screw, factory-set to 500k Ohms; input jack; output 1; output 2; tuner out/remote sensor input; taper selector; 24v input for mains power (international PSU unit supplied)

**Left side:** Blue LED (can be switched off); USB port

**Options:** Low or high profile, (no extra charge); locking or unlocking power supply jack (no charge); worldwide power supply (no charge); remote sensor (\$50 or free to disabled musicians); FP-100S stereo model

**Dimensions:** 270mm long, 90mm wide, 60mm deep (high profile) or 50mm deep (low profile)

**Weight:** 1.06kg/2.35lbs

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Mullen Guitar Co  
www.mullenguitars.com

## THE COMPETITION

### ERNIE BALL 6166 Volume Pedal

Passive pedal, fine for standing-up guitar pedalboard use and simple swells and on/off duties. Has a 250k pot and a tuner out  
RRP: £130

### GOODRICH 120

The most widely-used passive pedal steel VP, with a pot-and-string mechanism. Better than the Ernie Ball for sitting down. The factory pot probably won't last long. UK supplier: www.steelguitars.co.uk  
RRP: £129.95

### HILTON Digital volume pedal

Smooth digital pedal again aimed at steel players with one in and two outs. 24v mains power, available with Euro mains capability and in high and low profile forms. See www.steelguitars.co.uk  
RRP: £204.95

at once. Plugging a tuner into the Tuner Out socket will give a tuning reading at any pedal angle, and there's a mini-pot for adjusting input impedance to suit your pickup... best left at factory settings unless you really know your electronics. Future developments may include voltage tapers that will allow the pedal to integrate with multi-FX systems to introduce, say, user-definable effects at certain points in the pedal travel, and they're cooking up versions to link to expression pedals and even one in which the treadle will operate in more than one dimension.

Physically, the FP-100 is crafted from CNC-milled aluminium. It's black-anodised for tough good looks, and all the lettering is lasered. The jacks are firm and positive, and the steel pivot bar runs on hardened aluminium surfaces for long, maintenance-free life.

## IN USE

You might think the FP-100's multiple audio tapers are audio nit-pickery of the first order, but the primary market is steel players, and skilled steel players don't just use volume pedals for simple swells – they strike a note or chord with the pedal halfway on and then subtly increase the volume as the note naturally decays, like a delicate human-operated compressor. It's a technique that requires practice and subtlety and benefits from a perfect action.

Sure enough, the FP-100's light, super-smooth treadle makes the finest of manipulations a breeze, whether on steel guitar, electric or acoustic, with the signal responding to the tiniest pressure with no stickiness or backlash and the volume coming on like poured double cream. My favourite was the 'Allen-Bradley' curve, a copy of the taper of the long-discontinued US-built 500k pot, and it proved easy to adapt some unused settings to leave different levels



This tiny sensor can be attached to any part of the body – on a cap is a good place – to control the pedal remotely

## The FP-100's treadle works with no stickiness or backlash, and the volume comes on like poured double cream

of volume in the 'fully off' position... a hugely useful capability which leaves the pedal's overall 'throw' unchanged. The sound quality is glorious: warm, clear and full-range, with no tizzy highs.

The FP-100 has one more eyebrow-raising capability: the Tuner Out jack socket accepts a miniature sensor that can be mounted on any part of the body to control the pedal remotely. It was designed for musicians who cannot use a foot-operated pedal (if you are physically impaired, Telonics will give you a sensor for free). You can velcro it to a baseball cap and swell the volume from 0 to 10 with a tip of your head through 40 degrees, or attach it to your elbow, the top of your foot or, come to think of it, even a guitar's vibrato arm.

Controlling the strength of your signal by waving your foot in the air with the actual pedal sitting some six feet away is a disorientating experience – but for effects-mad deep thinkers, it could spark whole new areas for creativity.

## VERDICT

If you're frustrated with your old string-operated volume pedal or rightly worried about how to get good pots (you just can't buy quality 500k long-shaft pots any more, and the only real contender, the Dunlop Hot Potz, is stiff-acted and its audio taper isn't perfect) then an electronic pedal is the answer. The Telonics FP-100 is a 'smart' expression pedal built to extremely high specs that specialises, in this first-generation form, as a pure volume pedal. It's a gorgeous-feeling and super-sounding unit that'll probably last a lifetime. It costs about the same as an high-dollar boutique overdrive, or a shade over £300 once the dust has settled – but it's the best volume pedal on the planet.

## FINAL SCORE

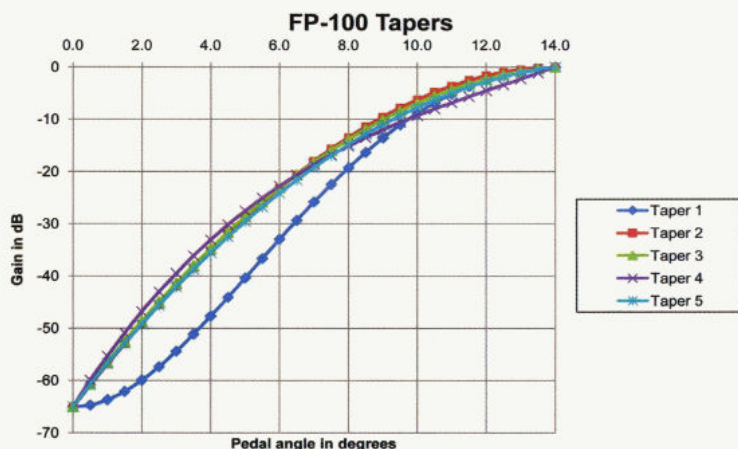
Build Quality .....	20/20
Usability .....	18/20
Sound .....	19/20
Value for money .....	15/20
Vibe .....	18/20

## TOTAL .....

90%

Good for... Advanced and subtle volume pedal use with no tone roll-off

Look elsewhere... For occasional volume swells, where a cheap, basic pot pedal will probably do



The FP-100 comes with five factory volume tapers, but since each one can be adjusted for 'minimum on' settings, you can program your own custom tapers