### Gibson G FORCE™ Retrofit on Older Guitars

The short answer is no, you cannot install it yourself.

### CIRCUIT BOARD AND TUNERS WON'T LINE UP ACCURATELY

The Gibson G FORCE™ is a remarkable feat of engineering and manufacturing. All this takes place with the use of very precise components which must be placed very precisely to allow the device to work reliably, or even work at all. At the factory we insure the tight tolerances needed are maintained on all our new instruments, particularly on the exact location of the tuning heads to each other.

Older instruments, and instruments that do not have the dove wing headstock, were not built to these dimensions and did not maintain the tight tolerance we do today. Thus the circuit board that allows each tuner to receive power would not fit exactly, and perhaps not at all.

Gibson has built different configurations over our many years in business, and prior to our acquiring modern NC machines, tolerance for tuners varied considerably.

We are working on future designs that will work even better and be able to work in all guitars, but that will require more time and a lot of new technology to reduce size, etc. We will bring you this new technology at some future point when it is working as good as the current system (or even better).

## THE DEVICE FIRMWARE IS PROGRAMED FOR THE GUITAR MODEL AT THE FACTORY

To ensure proper performance, we have many software parameters which are optimized for a specific guitar model. An older guitar will be different so it will require reprograming the device to optimize for the older guitar. This is not something a user knows how to do.

### THE OLDER NUTS COULD HAVE TOO MUCH FRICTION

The older guitars did not have nuts designed for the Gibson G FORCE™ system. We use a nut that is extremely low friction for this remarkable technology to allow fast tuning response without string breakage. While some nuts may be acceptable, you would not know that until after installation. There is no easy way to see this visually.

## A TUNER CHANGE AND ADDED COMPONENTS REQUIRE A NEW SETUP TO HAVE GREAT PLAYABILITY

Adding this system requires setting up the instrument to maintain professional performance. It is like going through our final assembly process again.

A qualified luthier (professional guitar builder or repair person) has the tools and skill to be able to do this in a reasonable period of time. So if the dimensions for the circuit board fit and the nut is not a problem, they can install the current system with an optimum reliable setup. They will also have to know how to adjust the software and physically install the device to insure professional performance and reliablility.

# Can You Remove the Gibson G FORCE™ from Current Guitars?

The short answer is you can, but the guitar will not perform as well.

#### A TUNER CHANGE MEANS A NEW SETUP AND A DECREASE IN PLAYABILITY

Adding this system requires setting up the instrument to maintain professional performance. It is like going through our final assembly process again. A qualified luthier (professional guitar builder or repair person) has the tools and skill to be able to do this but without the benefit of a very expensive Plek machine.

The Plek machine achieves incredible precision laser measuring fret to incredible tolerances duplicating the exact guitar and parts on an individual instrument, then cutting each fret to achieve unbelievable playability. When a major component like a tuner is replaced that changes the guitar enough that the perfect setup is no longer maintained. The very best luthiers (guitar craftsmen/repair people) can get close, but they cannot duplicate the guitar string tension like a Plek machine does.

#### http://www.plek.com/en\_US/technik/

In addition, a lesser luthier can change other aspects of the instrument to worsen the way the guitar plays and sounds.

A Gibson guitar is the culmination of many hours of craftspeople in the United States using the most sophisticated and expensive technology in the world. Every Gibson brand guitar is Plek'd and set up to be played by professionals once done to standards that simply were not achievable even 5 years ago.

Rebuilding the guitar by changing tuners can still get you a playable instrument, but you can never achieve the playability, tone, and sustain as a proper Gibson from our factory without doing what we do.

### WHY CHANGE A TUNER WHEN THE GIBSON G FORCE™ TUNER IS A BETTER MANUAL TUNER?

The Gibson G FORCE™ tuner is lighter, more robust and a better tuner when used manually. One actually never has to press the button to tune your guitar if you do not want to, and you can continue to tune manually if that is what you prefer.

As a mechanical tuner, the Gibson G FORCE™ e tuner is a micro tuner with a 40:1 gear ratio, making it more than twice as precise as a regular guitar tuner. [Traditional tuners have a ratio of 14:1 to 18:1. They use a rougher helical gear often packed with grease, which tends to dry with age making them stiffer. We use high technology material that are more precise robust and perform better]

It is also a locking guitar tuner. Standard mechanical tuners are not locking. That means you do not have to wind the string around the post which makes staying in tune more difficult and can cause breaking strings. It also makes changing strings easier.

Replacing a Gibson G FORCE™ tuner will not improve the guitar's playability or tone. The string vibration should stop at the nut in a properly built guitar. The precise string placement because of the locking mechanism and the post dimensions tend to provide more sustain than older instruments by ensuring the vibration does not leak beyond the nut. It is likely a replacement of Gibson G FORCE™ tuners will result in losing sustain, tone and playability of your guitar.

It is very difficult to see the Gibson G FORCE™ system unless you look very closely at the back of the headstock. The tuner key is traditional and in fact is built to be replaced so that a tuner key can be changed to achieve a different look.