

MAKING ADJUSTMENTS TO OPTICAL PEDALS

If you need additional assistance beyond these procedures, you can contact us via email at scott@morleypedals.com
Log onto www.morleypedals.com for complete product information.

They say you can't please everyone all the time. As true as this statement may be, we have noticed that with wah pedals, every player has a different interpretation of what a wah should sound like. There is really no right or wrong in this area and it can be a bit like thinking of the color blue (everyone will have a different shade in their mind).

This article outlines some of the general information needed to begin to alter the wah or volume on our Electro-Optical pedals and how to make adjustment to our optical switching for our switchless pedals (we call that the Trip Point). The average vision of how a wah sound or how a volume functions will vary from user to user. Giving you this information will put the control directly in your hands allowing you to achieve that sound in your head. Here's what you need to know to adjust the wah and volume.

Electro-Optical Circuitry Basics

Electro-Optical Circuitry functions by a Light Emitting Diode (LED) shining light through a Shutter and onto a Light Dependent Resistor (LDR – sometime referred to as a photocell). As the pedal is moved forward more light from the LED is allowed to shine through an opening in the shutter onto the LDR allowing the pedal to function electronically. On the newest versions of our switchless pedals (2010 or later) there is a Photo Transistor (PHT) used instead of an Light Dependant resistor (LDR).

Trip Point Adjustment

The Trip Point is the point at which our switchless pedals go in and out of Wah mode.

Our switchless pedals use optics to turn on/off the wah. The optics that controls our switchless pedals on/off are labeled L1 (red LED), and LDR1 (photocell). Note that newer versions of our switchless designs use a Photo Transistor (PHT) in place of a Light Dependant Resistor (LDR. You'll notice that the shutter between them has a large opening that simply allows light to shine across from L1 to LDR1 (or PHT1) when the pedal is moved more than 1/16" of an inch. When your foot is removed, the pedal springs back into the "toe up" position. The shutter then blocks the light from shining across which in turn makes the pedal go to bypass.

To test and set the Trip Point, place a nickel under each of the rubber bump-ons under the heel side of the foot treadle. Ideally, the Wah should be right on the verge of Wah mode and bypass with the nickels inserted (the external Wah Indicator LED should turn on/off). If the Wah is always on OR not on at all, you will need to adjust the Trip Point.

To adjust the TRIP POINT (Wah on/off)

NOTE: All adjustments made are directionally referenced to the pedal on a tabletop upside down with the heel end of the pedal towards you.

The best way to make an adjustment is to move the physical location of L1 LED. If your pedal does not go into bypass unless you apply pressure to the heel end of the foot-pedal, you'll need to push L1 towards the tabletop slightly. A small movement can make a large change so don't move it too much.

If your pedal takes too much of a movement before the wah engages, you'll need to move L1 toward the ceiling (again, a little movement goes a long way!).

Each time you make an adjustment, flip the pedal over (make sure the electronics of the pedal are in darkness or it will not work correctly), hook up and power up the pedal and test the Trip Point. Continue to adjust as needed.

To adjust the WAH OFF DELAY:

Remove the bottom cover held on by 4 Phillips head screws. Looking at the circuit board so that you can read the text you should find a trim pot marked TP1 and WAH OFF DELAY toward the left side middle of the pedal. If you turn the center of the trim pot clockwise (from the heel end of the pedal) with a miniature screw driver (or the tip of a pocket knife or finger nail file) it will speed up the time it takes to go back to bypass.