

HotGrips Installation

There are two general solutions when it comes to upgrading any motorcycle with heated grips. Heated membranes that fit under the stock grips or complete replacement grips with the heating elements built-in.

A nice dual-element heated membrane is available from [DualStar](#). The dual element design allows for high and low heat settings without resorting to power robbing resistors or expensive solid-state heat controllers. The primary disadvantage of any heated membrane solution is that the solid aluminum bars act as a great heat-sink and will rob the grip of much of the heat produced on the side without the throttle sleeve. Some users have reported a certain amount of success using two or three layers of heat shrink tubing on the bar as a thermal break but there is a limit as to how many layers can be applied while still managing to get the grips to stretch enough to fit back on. The advantages of the heated membrane are low cost and the ability to retain the stock grips if desired.

[HotGrips](#) offers specially designed replacement grips with heaters integrated within. I have large hands and like the larger diameter of the HotGrips. The larger diameter provides over 20% more heated surface area to transfer heat and my gloved hand can conform to the larger diameter more efficiently. In addition, a larger grip translates to less pressure on the palms (more surface area and a rounder profile). The other advantage of HotGrips is that the larger diameter is used to provide a very efficient thermal break between the heating elements and the bars so very little of the heat produced is lost to the aluminum bar.

The following photos illustrate the physical installation of HotGrips on my 2002 Ducati ST4s. The wiring is quite straight-forward and is not covered here.

I installed HotGrips model #525-875 with the ends drilled open. Make sure you specify the open end because Hotgrips does a nice job of reaming the hole in the end and this may be difficult to achieve at home. [Riderwarehouse](#) has a lower price than direct from [HotGrips](#). Order the 5.25" long x 7/8" model #1898. The Hotgrips depicted at Riderwarehouse look to be a new style with a raised ribbed pattern instead of a recessed rib pattern as still depicted at the Hotgrips site. If this makes a difference to you it's probably a good idea to call before ordering to insure you are able to get the style you prefer.



The old grip is removed. I found that heating the grip with a heat gun for about two minutes helped the stock grips to slide right off with a minimum of fuss.

Using a Dremel tool and a cylindrical bit I carved most of the outer ridge off the stock plastic throttle slide, just enough that the HotGrip would slide over. I also carved the inside of the HotGrip and enough of the inner ridge so that the grip would slide up to the throttle cable housing without a gap as illustrated in the following two photos.



The same cylindrical carving bit was used to carve the inside ridges to provide clearance for the thicker inboard end of the plastic throttle slide. Care must be taken not to carve so deep that the resistor wires are damaged. As long as you don't carve below the depth of the valleys, you will be fine. Those ridges and valleys provide a very effective thermal break that prevents the bars from sapping the heat produced by the HotGrips. This is particularly important on the left grip as it doesn't have a plastic throttle slide to insulate it from the bar.



When you have carved enough material from the plastic throttle slide and the inside of the HotGrip it will slide all the way on as shown in the photos without an unsightly gap between the grip and the cable housing.



The Grip will be flush with the bar end. I found that locating the wire at the 6 o'clock position provided optimum action/aesthetics. When you are satisfied that everything fits properly the instructions recommend using epoxy to glue the left grip to the bar and the right grip to the plastic throttle slide. Because the bars end weights will keep the grips from sliding off the end we are primarily concerned with keeping them from rotating. The HotGrips website has [great instructions](#) on installing the left grip in a removable manner without resorting to epoxy. The throttle side grip could be installed without epoxy by "keying" the plastic throttle slide to the ridges inside the grip during the carving phase but I didn't bother since I expect to appreciate the HotGrips year-round.



I used three or four washers of the appropriate size to shim the bar end weight leaving a small amount of clearance between it and the grip. The stock hex head bolts that hold the bar end weight on are only long enough for a few threads to bite inside the bar end so I purchased new fasteners that are 5mm longer (8x40mm).



I wanted to mount the heat controller in a location that wouldn't complicate the removal of the dash

panels or the fairing. I was pleased to discover it would fit in the foam between the instruments. I peeled the foam away where the adhesive held it to the instrument cluster and carved out an appropriately sized recess in the back of the foam. The foam cuts very cleanly with a sharp X-acto blade. It is also a very clean installation and does not complicate the removal of the fairing or other bits.

Update: I have recently removed the variable controller in the dash and installed a three-way switch and resistor on the left hand fairing mounting bracket that is visible in the gap between the tank and fairing.



Overall, the installation is straight forward and the end result looks very nice. I always thought the stock grips were a bit too skinny for a bike meant to cover some distance. The new, larger diameter HotGrips fit my hands better and provide more comfort. Besides, it's difficult to operate the controls deftly when your fingers are starting to lose feeling from the cold. These grips are really hot! I was really impressed with how much heat could be felt through my gloves and how warm my hands stayed on a damp night that was just three or four degrees above freezing.

The effectiveness of any heated grip when it gets really cold is entirely dependent upon the design and construction of the motorcycle gloves used. Previously, I used a pair of Held "Brut" gloves with thin kangaroo leather palms and Gore-tex liners. This combination was optimum for cold temperatures and was my glove of choice until the temperature rose above 92 degrees F. The downside to gloves containing thin Gore-tex glove liners is the liners are not very durable. Mine developed a couple of small holes after about 18,000 miles. Of course they are still comfortable and keep most of the cold air from infiltrating but they will no longer keep your hands dry. Unfortunately, I have been unable to find any gloves that match the discontinued Held Brut's in terms of control feel (thin palms) and wind resistance (Gore-tex liner). I am using a similar pair that is not available with the Gore-tex liner and find my hands are only kept warm and comfy down to

around 45 degrees on extended rides. I'm still waiting for someone to make another excellent pair of wide-temperature motorcycle gloves with thin palms, knuckle padding and thin liners made of a seamless, wind-proof and breathable material.

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