» Warm & Safe HEAT LAYER SHIRT

Warm and Safe's new Heat Layer Shirt (HLS) is an innovative concept that brings the warmth closer to the rider's skin than traditional jacket liners. As its name implies, the HLS can be worn in lieu of a traditional shirt, reducing bulkiness under winter jackets.

The HLS is constructed of a black stretch fabric with both wicking and anti-bacterial properties and has active heating in the chest, arms, neck and upper and lower back.

Thoughtfully, this garment arrives pre-wired for independent control of the main HLS and heated gloves. Standard coaxial cable leads live in zippered pockets near the sleeve cuffs for gloves, while coaxial main power inputs are located in a discrete zippered pocket on the left torso.

We tested the HLS with W&S's "Dual Remote Heat-troller" (MCN 2/11), which uses a remote controller to communicate wirelessly with a receiver that is stored inside the HLS's pocket. The receiver makes the hardwire connection between the power source from the motorcycle and the input connections on the gear. It has a dual output, so two separate pieces of gear can be powered independently of each other. Functionality is simple: Turn the marked knobs to adjust the heat output of the gear to your preference, from 3 to 100 percent. A 15 amp fused battery harness is included, and the controller/receiver combo arrives pre-synchronized; simply plug in the power line, turn the unit on, and ride.

An "Artic Bomb Cyclone" which devastated the east coast in January provided optimum environmental conditions for heated gear testing. I rode for hundreds of miles in teen and single-digit temps, where the HLS was preferable in many ways to traditional heated jacket liners.

First, it's more convenient: It's a base layer, eliminating the extra bulk of a heated jacket liner, and the annoyance of taking the liner off and storing it if things warm up. Second, it's more comfortable than a jacket liner, by far. The heat is direct to the skin, so you feel warmer faster, while reducing power consumption, since the heat doesn't have to travel through base layers to get to the rider as with traditional heated jacket liners. Note that the HLS max draw is 48 watts, or roughly half that of traditional jacket liners. Finally, it's significantly less expensive than most heated jacket liners, at $179.99.

My only niggle was some rather thick wiring could be seen through the stretch fabric in the lower chest and upper bicep areas. It was never uncomfortable, but detracted from the otherwise sleek appearance of the HLS. Ultimately, the HLS achieved all of the functional benefits of heated jacket liners, and then some, at a lower price point.

—Moshe K. Levy

●●●●◐ **Warm & Safe, *warmnsafe.com***

» RAM TOUGH-CLAW & X-GRIP MOUNT

Most RAM configurations are a collection of interchangeable parts available separately or bundled together. This combo lists for $69.49 and offers adaptability for mounting a phone on multiple street or off-road bikes.

The rectangular X-Grip cradle accommodates phones with maximum widths from 1.875 to 3.25 inches and minimum heights of 4.25 to 2.25 inches, respectively. Four spring-loaded arms extend from a central base (becoming square as expanded), squeezing the phone between thick rubber pads.

Although quite secure, for extra peace of mind a rubber harness is included that runs behind the base and loops over each corner of the phone. Our X-Grip had a standard 1-inch rubberized RAM attachment ball.

The Tough-Claw mount provides an extremely easy clamping installation with a few twists of its large thumb screw. The small claw grasps tubes between 0.625 and 1.5 inches, as well as flat surfaces up to 1.14 inches. It worked equally well on a tubular interface and a girder-like handguard stalk.

Connecting our Tough-Claw to the X-Grip is RAM's 2-inch Double-Socket arm. This length provided plenty of range for positioning the phone, without excessive bulk. To relocate it, simply loosen the thumb screw, shift the arm as needed, then retighten.

Once set up, the phone never budged, even with violent jarring. Our only gripe was the thin adhesive supplied for permanently attaching the X-Grip's rubber pads to its metal arms. Be cautious when applying or use a more easily managed adhesive.

Larger sizes of each component are available, for additional positioning options.

—Mark Barnes

●●●●● **RAM, *rammount.com***