

Manta Extreme Rail Guards

by Christopher R. Bartocci



Manta Low Profile Cross Clip Panel rail guards as issued with the M27 IAR for the U.S. Marine Corps. They are issued in both black and tan. Also issued is the tan or black vertical grip sleeve.

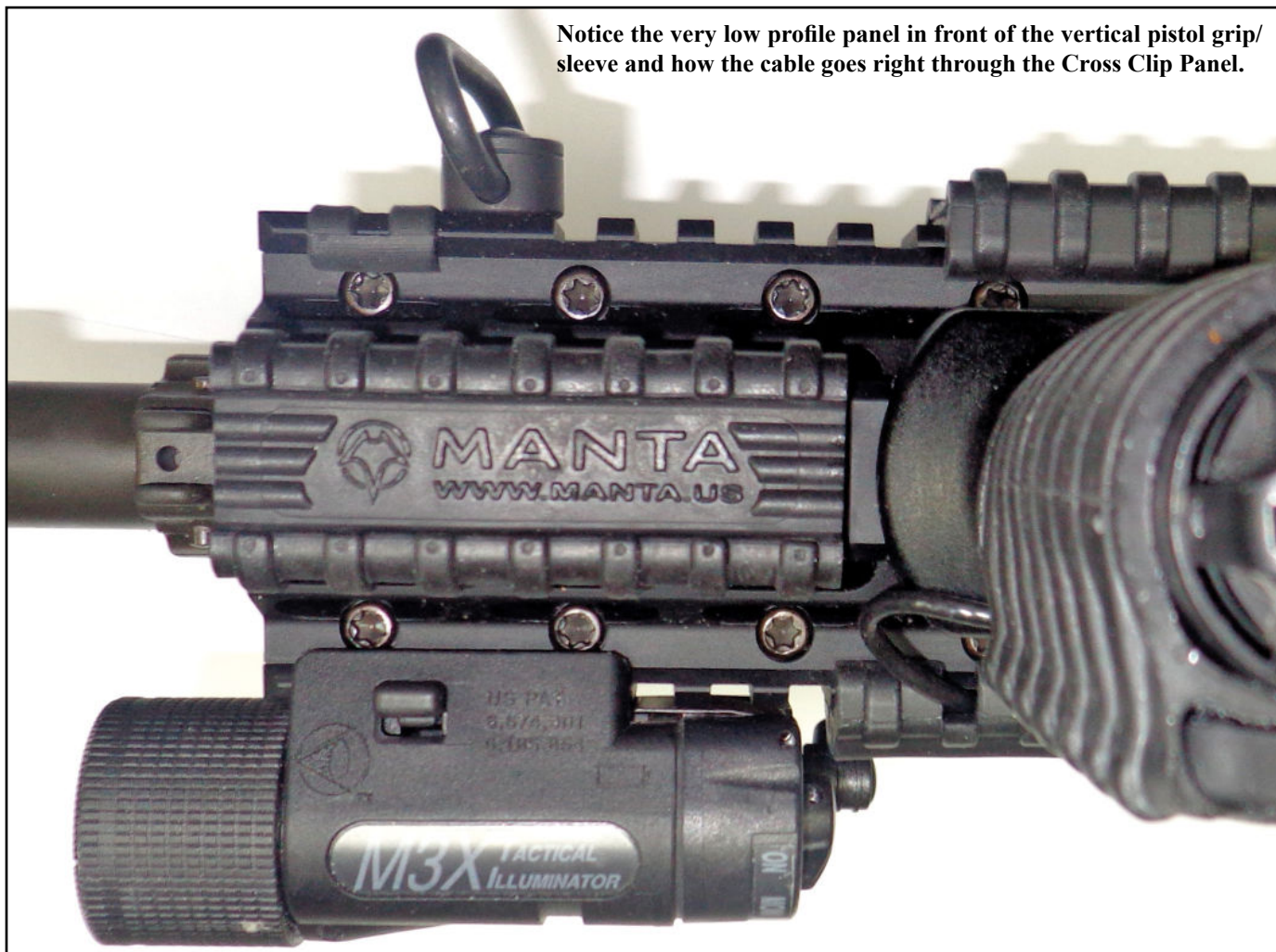
The AR/M16 market is flooded by a multibillion dollar industry of manufacturers of rifles, components and accessories. With the onset of the Mil-Std 1913 rail and the development of rail handguards, it was obvious that the unused rails needed protection for further use as well as the shooter's hand needed protection from the heat of the aluminum or steel rail systems. The first accepted and general purpose rail protectors were manufactured by Knights for the U.S. Government issued M4 and M5 RAS (Rail Adapter System).

Like every accessory in the never-ending line up, technology as well as clever ingenuity leads to some much better options. Perhaps the finest of the breed was developed by Advanced Innovation & Manufacturing out of North Royalton, Ohio with their Manta rail guards.

Manta rails are truly in a class of their own as several things separate these guards from the norm. First is the fact that stainless steel clips are molded into the advanced "Polyunobtanium" material used to manufacture the Manta rail. Unlike traditional rubber rail guards, which will eventually stretch and become loose, the Manta rail guard has flexible molded rail sections that can be pinched to the desired tension or cut to the desired length.



Shown on the right side of the rail are the two Cross Clip Panels and underneath a Vertical Grip sleeve and a short Very Low Profile Panel. Notice how the pressure pad from the Insight Tech M6X tactical light is inserted into the sleeve and the cable goes through the Cross Clip Panel.



Notice the very low profile panel in front of the vertical pistol grip/sleeve and how the cable goes right through the Cross Clip Panel.



Another incredible feature is the Micro Pocket inside the top of the panel, which allows a pressure pad of any size to be slipped into the pocket protecting your switch from heat and external hazards. The Micro Pocket panel also allows for simple removal and installation of your switch. Manta has the answer whether a switch is to be mounted on a hand guard or on a vertical grip. They offer two different diameter sleeves that slide over a vertical pistol grip or the larger vertical

Left: This is an incredible display of the heat resistance of the polymer used to make the Manta rail protectors. Top shows a rail panel being heated by a cigarette lighter for several seconds. Notice that it has little to no damage. The bottom is a Manta Suppressor Sleeve (MSS), which has been exposed to a propane torch for an entire minute with only discoloration and minor damage. This MSS is still fully useable. The suppressor would never obtain this type of temperature.

grips such as the Grip Pod. The larger vertical grip sleeve can also be mounted over your rear pistol grip to give you an enhanced tactile feel. Molded channels in the very low profile cross clip model enable cords to be placed under and through the rail guard to protect the cord from damage or getting hooked on anything. The 2.75 inch pocket panel also allows an operator to use it as rail guard even if they are not utilizing the micro pocket for a switch. Also offered is a .25 inch Wire Clip to hold a wire in place and .5 inch Cross Clip that allows you to route wire in a multitude of directions or take up any extra length of cord making zip ties a thing of the past.

Manta has a diverse line of rail guards and wire management panels. Depending on your pressure pad and whether you would like it on your rail or your vertical grip, there is a micro pocket push button panel or a standard 2.75 inch micro pocket panel. The micro pocket panels also interface nicely with optional end caps to finish off the look of the switch helping to affix the switch system tighter to the rails and will also prevent dirt from entering the pocket. Vertical Grip Sleeves in 1-inch diameter for standard pegs and the 1.25-inch diameter for larger grips such as the Grip Pod or even your rear pistol grip. Standard Very Low Profile rail guard panels and Very Low Profile Cross Clip panels are offered in 6-inch sections and can be cut to length for a custom fit. Rounding out their wire management products are the Manta Wire Clip and Manta Cross Clip to create a clean rail free from exposed wire that can easily get snagged.

The tactile material is easy to grip even under the harshest condition. It has been tested in extreme cold and more importantly in intense heat. This stuff does not melt. A blowtorch and cigarette lighter were taken to the panel for nearly a minute. Some discoloring and some ash



Line up of various extreme rail guards offered by Manta.

Right: Shown is the IR signature after three magazines fired in fully automatic without the use of a Manta Suppressor Sleeve (MSS). **(Inset:** Shown is the IR signature after three magazines fired in fully automatic with the Manta Suppressor Sleeve (MSS). Notice how the IR signature is hidden from the covered portions of the suppressor.)



M27 Infantry Automatic Rifle 5.56 mm x 45

A variant of the Heckler & Koch HK416, the M27 Infantry Automatic Rifle (IAR) was selected by the U.S. Marine Corps in August 2011 as an innovative program to develop a highly accurate, lightweight, and more reliable alternative to currently fielded light machine guns.

The "M27" designation represents a variant to the 2nd Battalion, 7th Marine Regiment which is the unit that developed the original concept of the Infantry Automatic Rifle. The Infantry Automatic Rifle program began in 2001 as a "needs statement" within the Marine Corps. Operational experience in Iraq and Afghanistan in the last several years reinforced the requirement.

The program called for a magazine-fed 5.56 mm automatic rifle designed to be operated by a single Marine and possessing greater accuracy, increased reliability, and lighter weight than the existing belt-fed 5.56 mm machine gun. These factors would enhance the automatic rifle's maneuverability and speed to either augment and/or replace the belt-fed M249 Squad Automatic Weapon (SAW). As recent testing and operational deployment has confirmed, the IAR is more readily adapted for house-to-house clearing operations and day-to-day employment by the automatic rifleman when compared to an M249. A fully loaded M27 IAR weighs less than half that of an M249 SAW.

During a rigorous selection process that began in 2006, the Heckler & Koch HK416 IAR competed against more than seven weapon models submitted by six companies. In 2009, after surviving several "down selector" that eliminated all but a handful of candidate weapons, the HK416 was selected as the finalist from the three remaining companies (the others being FN and Colt Defense).

Initial operational testing in locations including the Marine Corps Mountain Warfare Training Center and Marine Corps Air Ground Combat Center further demonstrated the suitability of the HK416 for the Infantry Automatic Rifle role.

In 2010, HK was awarded with a Low Rate Initial Production (LRIP) order for approximately 500 systems. The rifles were delivered on the Marine Corps' Birthday, November 10th, 2010 for initial testing, limited fielding, and selected Marine Infantry unit/area assessments.

The Marine Corps completed their initial fielding and assessments in the summer of 2011 and in the autumn of 2011 Heckler & Koch was awarded a Full Rate Production award.

The M27 IAR is a 5.56 mm NATO rifle. It is a magazine-fed, gas-operated, belt-fed, selective fire rifle. It is a 5.56 mm NATO rifle. It is a magazine-fed, gas-operated, belt-fed, selective fire rifle.

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were noticed. The ash was brushed off. Noticeable discoloration and a minute loss of material but no hole and the panel was still 100% functional. In fact, due to the heat resistance of this material, Manta increased the heat resisting properties of their materials and offer what they call the MSS or Manta Suppressor Sleeve. Many operators when they fire their suppressed weapons end up dropping the weapon and transitioning to the hand gun. The rifle hangs just at the point where the suppressor contacts the expensive tactical pants and burns a hole in them. So these covers insulate the suppressor from burning holes in pants (or the shooter). This MSS is so effective that a non-vented area is indexed at the 12 o'clock position to severely diminish the haze and mirage

caused by the heat. Even more fascinating as it hides the thermal heat signature of the muzzle. Thermal imaging proves this and it certainly offers an advantage. There is no burning smell from the material.

The Manta rails durability was noticed by the U.S. Marine Corps and is standard issue on their M27 IAR or Infantry Automatic Rifle. This means Manta has a CAGE Code, which is 65M28, as well as National Stock Numbers in Black and Tan for the 1 inch vertical grip sleeves, 6 inch Very Low Profile Cross Clip Panels, 2.75 inch Micro Panel Pocket Panels and the Cross Clips. You will also find Manta

Above: Shown are all of the accessories issued with the M27 IAR or Infantry Automatic Rifle. Notice the Manta Rail Guards issued on the IAR.

products being utilized by military units around the world and even standard issue in some locations. For more information contact: Advanced Innovation and Manufacturing, Inc., 9940 York Alpha Drive, North Royalton, OH 44133. Phone: (440) 237-2460. Fax: (440) 237-2561. Website: www.mantarails.com. E-mail: sales@mantarails.com.

Shown is an H&K MR556A1 loaded with the Manta Suppressor Sleeve (MSS), as well as the entire line of products offered by Manta. Notice the grip on the pistol grip.

