

MESA TACTICAL

ASSEMBLY AND OPERATION GUIDE



SURESHELL SHOTSHELL CARRIERS FOR THE KEL-TEC KSG

SureShell Shotshell Carriers Assembly and Operation Guide

Thank you for your purchase of the Mesa Tactical SureShell™ on-gun shotgun shell carrier. Our products are manufactured using the highest quality processes and materials, and should provide many years of reliable service.

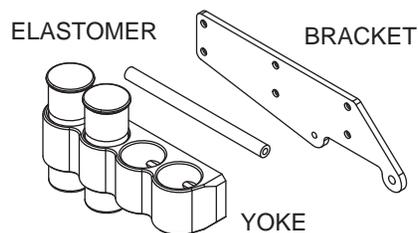
For best results, please read this entire manual before installing and using your SureShell shotshell carrier. If you have any questions, please call 714-545-3332 or e-mail support@mesatactical.com.

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SYSTEM CONCEPT

SureShell shotshell carriers are assemblies comprising an aluminum yoke and backing plate and a Santoprene® elastomer tube. The yoke features four to eight vertical bores .700” or .810” in diameter to accept 20-gauge or 12-gauge shotshell shells. The shells are securely retained by the elastomer tube interfering with the bores. In many cases, shells can be confidently retained in a brass down as well as a brass up configuration, though brass up is most secure.



The principle difference between one model of SureShell and another, aside from capacity, is the backing plate, which is designed to mount the carrier assembly on a particular model of shotgun. Side-mount SureShell shotshell carriers for Mossberg, Remington and Benelli M1 shotguns use the trigger group pin holes to secure the assemblies to the weapon; the Benelli M2 Tactical, Benelli M4/M1014, Benelli SuperNova Tactical, Kel-Tec KSG and some Mossberg 500/590 versions take advantage of the factory-tapped rail mounting holes in the tops of these shotguns and include integrated Picatiny optics mounting rails.

SURESHELL FOR KEL-TEC KSG

The SureShell carrier yokes for the Kel-Tec KSG shotgun are mounted on an extruded aluminum Picatiny rail that replaces the KSG's factory optics rail. Available configurations include:

- One four-shot yoke mounted on the right;
- One four-shot yoke mounted on the left;
- One six-shot yoke mounted on the right;

- One six-shot yoke mounted on the left;
- Four shot yokes mounted on both sides;
- Six shot yokes mounted on both sides.



Aluminum tabs on each side of the SureShell Carrier and Rail for the Kel-Tec KSG can accept lengths of Picatiny accessory rail (available separately) for the mounting of weapon lights and lasers.

The KSG's factory rail is attached to two mount pillars, front and back, with an M4 metric bolt at each end. The SureShell Carrier and Rail for the Kel-Tec KSG mounting system is slightly different. Once the factory rail is removed, a steel recoil block is installed on each of the mount pillars. In addition to a hole for a replacement M2 bolt, each recoil block also features a threaded hole at a 45° angle that accepts a set screw that is tightened into the mounting pillar. The aluminum SureShell and rail assembly is then fastened to the recoil blocks with four screws.



This arrangement is designed to provide a robust and secure mounting method for the loaded SureShell carrier, even under heavy recoil.

SANTOPRENE® ELASTOMER

The elastomer used to interfere with the shell bores and thus retain the shells in the SureShell shotgun carrier is made of tough Santoprene thermoplastic. We are required to publish the following message to comply with California's Proposition 65:

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

ELASTOMER STIFFNESS

SureShell carriers are assembled at the factory with a black Santoprene elastomer tube with a shore value, or stiffness, of A64. This has proven to be optimal for most customers and in most situations. However, some customers require a stiffer elastomer and for those operators we have included an alternative white elastomer tube with a shore value of A73. The black elastomer tube can be swapped for the white one if tighter shell retention is required.

CHANGING THE ELASTOMER

The SureShell carrier's elastomer can be changed at any time. This may be necessary due to excessive wear of the original, or perhaps to replace the elastomer with the white tubing mentioned above, or an alternative material that offers more or less interference (and thus secures the shotgun shell in the shell carrier more or less tightly). Replacement elastomers are available free of charge from Mesa Tactical, if needed.



Another form of maintenance that can be performed on the elastomer is to clean it periodically of grease or oil that may reduce its ability to securely retain shotgun shells.

The elastomer is accessed by removing the shell carrier from the shotgun, then unscrewing the yoke from the backplate (there are six screws). The elastomer can then be removed from the channel machined into the yoke, which can be clearly seen in the photo above.

OPERATION

The Mesa Tactical SureShell shotgun carrier is dramatically different from other shell carrier solutions, principally in the shell retention method. This might require a revision in training methods.

Any operator adopting the SureShell shotgun carrier *must* train with the new system before ever using the weapon in a duty situation.

The shells in the SureShell shotgun carrier are very close together. Shells can often be more quickly and reliably removed from the SureShell shotgun carrier if they are twisted out. With practice, this can be accomplished quickly as a single fluid movement.

Note that the SureShell shotgun carrier is not designed for long-term storage of shells on the weapon. It is instead designed for professional use in which the shells are replaced in the carrier during armory checkout. Storing shells in the carrier over long periods can deform the elastomer, resulting in a degradation of the shell retention efficacy. However, if the shells are removed from the carrier for a few hours the elastomer will reform to its original shape.

INSTALLATION ON THE KSG

Installing the SureShell Carrier and Rail for the Kel-Tec KSG is a very simple procedure and takes only a few minutes. Included with the SureShell assembly is the following hardware kit:

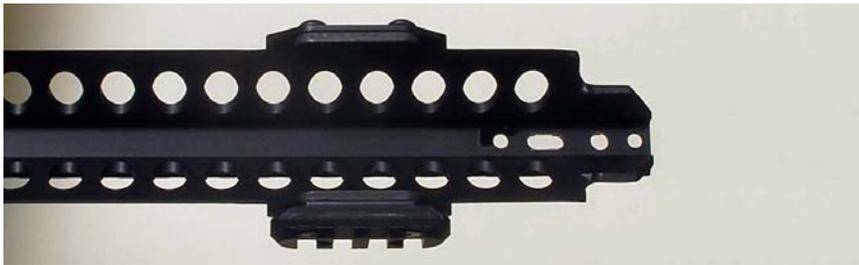
80125 Hardware for KSG shell carrier		
Qty	Part no	Specification
1	47004	1/8" hex key short arm
4	47098	Custom #8-40 screw
4	47099	#8 Bellville washer B-0169-0276-020-SER-STL-PLN
4	47131	#10-32 x 1/4" button head cap screw
2	47400	M4 x 12mm button head cap screw
2	47401	M4 x 12mm set screw
1	47402	2.5 mm hex key (gold)
1	47403	2 mm hex key (gold)
2	47415	Steel rail mounting cleat

Because there are both metric and imperial standard fasteners in the package, it is easy to confuse the hex keys. This is a significant hazard, because a mismatched hex key can strip the tool or the bolt or both. Therefore the metric hex keys in this package are gold. Do not use a black hex key with a metric fastener, and do not use a gold hex key with an imperial fastener.

ASSEMBLY PREPARATION

Before installation of the SureShell Carrier and Rail for the Kel-Tec KSG on the shotgun, prepare the assembly by fitting one or more accessory Picatinny rails to the side tabs (once the assembly is installed on the shotgun, it will be relatively difficult to execute this procedure).

Accessory rails are screwed onto steel threaded backing cleats instead of nuts, which means the screws can be tightened from the outside without the need to hold a nut with a wrench. The short button head cap screws are provided simply to fill the holes in the accessory tab (and incidentally to keep the threaded cleat in a safe and handy location: installed on the shell carrier assembly).



Once the accessory rails or button head cap screws are installed, the assembly is ready to be attached to the KSG shotgun.

KSG RAIL REMOVAL

Before beginning, ensure the KSG shotgun is unloaded and pointed in a safe direction.

The first step is to remove the factory optics fail from the KSG shotgun. Use one of the gold hex keys to loosen the two mounting screws. **To reduce the risk of stripping the screw head or the hex key or both, be extremely careful to ensure the hex key is firmly seated in the screw socket before applying torque.**



Once the screws are out, remove the rail:



Behind the rear rail mounting pillar is a small plastic recoil lug. Remove this as well:



Put the rail, screws and recoil lug in a safe place.

ASSEMBLY INSTALLATION

The first step in the installation of the SureShell Carrier and Rail for the Kel-Tec KSG is to *loosely attach* the two steel recoil blocks to the shotgun's rail mount pillars with the two M4 button head cap screws provided. Install them so that the angled threaded holes are rearward. Using the smaller gold hex key, loosely thread the two set screws into the angled holes.

When this step is finished the recoil blocks will be subject to slight movement, but will not fall off the mounting pillars.



Place the SureShell assembly on the recoil blocks and secure it in place using the four slotted head screws and conical washers.



Now use the gold hex keys (blue in these photos) to fully tighten the M4 button head screws and the angled set screws.



Finally, go back and re-tighten all four of the slotted top rail mounting screws.



Once you have established that everything fits well together, we suggest you disassemble the SureShell Carrier and Rail for the Kel-Tec KSG and re-assemble it once again, putting a drop of blue Loctite on each threaded fastener.

Continue to inspect the weapon for secure accessory attachment each time it is brought out for use or training.

SUPPORT

If you have any problems or questions, please feel free to contact Mesa Tactical for assistance at 714-545-3332 or support@mesatactical.com.

WARRANTY

Mesa Tactical warrants that all products are free from defective material and workmanship and, subject to the conditions set forth below, agrees to repair or replace any part of a product that proves defective by reason of improper workmanship or materials without charge for parts and labor.

In no event will Mesa Tactical be liable for damages, lost revenue, lost wages, lost savings or any other incidental or consequential damages arising from purchase, use or inability to use this product.

No express or implied warranty is made for Mesa Tactical product damaged by accidents, misuse, natural or personal disaster, or any unauthorized disassembly, repair or modification. Mesa Tactical's warranty covers only repair or replacement of defective Mesa Tactical products.



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