## ASAL System Handguard Assembly Instructions

Tools required, in order of use:

- Upper receiver vise block
- Vise large enough to hold receiver vise block
- Torque wrench capable of 35-50 ft·lbf
- 1-3/16" Offset [crowfoot] wrench
- Torque wrench capable of 20-32 in lbf
- 5/32" hex driver compatible with the above small torque wrench



## Procedure

- 1. Mount upper receiver and vise block combination into vise and secure.
- Install included barrel nut and tighten to 35-50 ft·lbf using the larger torque wrench combined with offset wrench. For best results, be sure to keep the offset wrench in line with the torque wrench as seen in the photo below and set the correct torque reading based off the distance of the offset wrench. Variable TA should be 35-50 ft·lbf.



https://www.tekton.com/blog/how-to-accurately-use-a-torque-wrench-with-a-crowfoot-wrench

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3. Install and align handguard rail with rail on upper, as seen in photo below. Handguard should be fully seated against front face of upper.

Note: some ejection port dust door hinge pins may need to be ground short to fit.



- 4. Insert ASAL cam into triangular pocket on handguard, small side inward as seen in photo above, and thread in #10-32 socket head cap screw from opposite side. Using the small torque wrench and 5/32" hex driver combination, torque cam nut fastener to 32 in·lbf. Note: Interference between groove on barrel nut and cam nut is normal and is by design. As cam screw is tightened, the cam nut will be fully seated, providing a strong lock against slip, rotation, and lift. Witness mark may be visible on bottom of clamp lug after tightening.
- Using the small torque wrench and 5/32" hex driver combination, install the two additional #10-32 fasteners and torque to 20 in·lbf.