PWD ENGINEERED SOLUTIONS

Congratulations and THANK YOU for purchasing your new PWD Engineered Solutions LLC X-2 MOD 1 or MOD 2 Handguard.

Installation using standard AR-15 upper receivers with PWD Barrel Nut

Tools Required for installation

- 1. Upper receiver holding jig
- 2. Vice
- 3. AR-15 Barrel Nut Tool
- 4. Gas tube alignment tool or Gas Tube
- 5. 1/8" Allen Wrench
- 6. ½" 30-100ft-lb Torque Wrench
- 7. Anti Seize compound
- 8. Blue thread locker (Vibra-tite VC-3)compound (optional)

Parts Required for Installation

- 1. AR-15 Upper receiver
- 2. PWD barrel nut
- 3. X-2 MOD 1 or MOD 2 Handguard Kit
- 4. Complete Barrel
- 5. Gas Block with Gas Tube

Installation Steps:

- 1. Mount upper receiver into holding jig in your vice with the picatinny rail horizontal and on top.
- 2. Slide complete barrel into the upper receiver with the locating pin pointing up (Gas port should also be pointing up). The locating pin should slide into its mating slot in the upper receiver.
- 3. Apply anti seize compound to barrel nut and/or upper receiver threads and slide barrel nut over barrel and thread it into the upper receiver
- 4. Using barrel nut tool and torque wrench torque barrel nut to 30-100 ft-lb. The torque required will depend on alignment of one of the gas tube holes with the upper receiver. Start by torquing to the minimum 30ft-lb and check alignment, then slowly increase torque (5-10ft-lb increments) with the toque wrench until the next closest hole aligns

with the hole in the upper receiver. Use the gas port alignment tool or gas tube to verify a clearance fit through the barrel nut and into the upper receiver.

- 5. If your gas block and gas tube are smaller than the ID of the X-2 handguard, then you can install it at this time. Ensure gas port in gas block and gas port in barrel are in alignment. IF GAS BLOCK IS LARGER THAN ID OF X-2 MOD 1 OR MOD 2 HANDGUARD THEN YOU MUST INTALL THE X-2 MOD 1 OR MOD 2 HANDGUARD FIRST!
- 6. Slide X-2 MOD 1 or MOD 2 handguard over barrel and onto the barrel nut on upper receiver. QD cup should be at the bottom on the front (muzzle) end of the handguard.
- 7. Line up the 8 holes in the handguard with the 8 threaded mounting holes in the barrel nut.
- 8. Using the 8x provided 10-32 screws and washers (apply blue thread locker or Vibra-tite VC-3 if desired) and install all 8 screws through handguard into barrel nut. We recommend torque to 45in-lb.
- 9. If your gas block is larger than the ID of the X-2 handguard then you must install the gas block and gas tube now. Ensure gas port in gas block and gas port in barrel are in alignment.
- 10. After the gas block and gas tube are installed you may install any muzzle devices.
- 11. Remove upper from jig, install charging handle and bolt carrier group and check mechanical function.