NUANCE ENERGY
Revolutionary Solar Racking Structures

OSPREY
PowerRack

Best Practices - Anchor Installation Drive Road

1. A Nuance Energy *Drive Rod* fits both our *F120 Anchors and F170 Anchors* currently sold.
2. There are two ways to use a *Nuance Energy Drive Rod*.
   a) Use- with a *2" SDS MAX Rotary Hammer Drill*. The heavier the drill the more you can rely on the weight of the drill to drive the anchor for you.
   b) Use with a *Gas-Powered Post Pounder* with the appropriate size collar inside the drive tunnel.
3. Make note of what the soil looks like when digging your trench. A gas-powered post pounder drives the anchor blind, so you will not know what you will encounter within the soil. This is ok if the soil is particularly sandy or loaming with very little rocks. This will also help determine if pilot holes are needed to clear a path for the anchor first.
4. Pilot holes can only be achieved with the *2" SDS MAX Rotary Hammer Drill*.
5. Using the *2" SDS MAX Rotary Hammer Drill* will allow you to spin the *Drive Rod* if needed. This is the recommended option because it allows you to probe on spin hammer mode to find a clear path for the *F120 or F170 Anchors*.
6. When probing the ground with the *Drive Rod* before driving the *Anchor* it is recommended to go 6"-10" at a time and continuously pull the rod up to make sure it does not bind up in the soil. If you use this technique keep an eye on the tip of the rod as it may start to file down to a point. Grind this point flat if you see this developing.
7. Once adequate soil is determined drive the Anchors either down your pilot hole or without a pilot hole.
   a) Drive Anchors at the appropriate angles (10° - 15°), found in the installation manual.
   b) While driving the anchor lay the Anchor cable on the ground and let the drill do the work of pounding the Anchor keeping a close eye that the Drive Rod is moving down pilot hole at the same rate as the cable into the hole.
   c) Should you see that the Anchor cable stops, and the Drive Rod continues to drive deeper stop immediately. There is a strong likelihood that you have blown through the head of the Anchor with the Drive Rod. This is rare but has occurred in the past.
   d) If you blow through the Anchor head, then disconnect the *2" SDS MAX Rotary Hammer Drill* from the *Drive Rod* by switching the drill to Neutral Setting and pulling back on the chuck to release the *Drive Rod* from the *Chuk*.
   e) Use the *OSPREY PowerJack™* with the *Cable Puller Tool* attached to pull up on the *Anchor Cable* extracting the Drive Rod at the same time. Cut the Anchor off the Cable with a cut off wheel on an angle grinder.
8. Always drill pilot holes first in hardpan conditions (Refer to *Drill Bit Best Practices* for that step). Once the depth of the pilot hole is completely drilled out, add a small amount of water to the bottom of the hole to soften up the

hard pan soil slightly allowing the Anchor to drive into the soil and open up. If you skip this step and the soil is hard enough the Anchor may not open once pressure is applied during load testing.

9. If there are a lot of obstacles in the path of the Anchor and the Drive Rod tip has broken off, you have the option to grind down the tip into a new taper to keep the installation moving forward. Keep an eye on the tip as it may mushroom over time. At this point it would be wise to purchase a new Drive Rod as the tips come hardened from the factory for this reason.
10. Drive Rods are a wearable item. If the Drive Rod breaks during normal use, there is no warranty covered by the Manufactures for this item.
11. If the Drive Rod gets wedged into the Anchor head at the bottom of the pilot hole after driving the Anchor and you cannot remove it easily try to put the drill in spin hammer mode and spin the Drive Rod free from the Anchor. Keep an eye on the Anchor Cable when doing this so that it doesn't wrap itself around the Drive Rod inadvertently.

Please don't hesitate to contact Nuance Energy for field support