M530 Installation Instructions

Standard Materials Required

- 4,000 PSI minimum strength concrete (see drawing appendix for foundation requirements).
- A crane or other suitable device which has the appropriate lifting capacity to place the barrier assemblies.
- Transit or other leveling device to assure proper barrier position.
- A backhoe or suitable device to excavate the site designated for barrier installation.
- Resources and materials to run conduit, pull wiring, and terminate electrical connections for barrier power and controls. Refer to drawing appendix for conduit layout and site-specific equipment for power requirements.
- Typical construction and concrete tools.

Foundation Installation

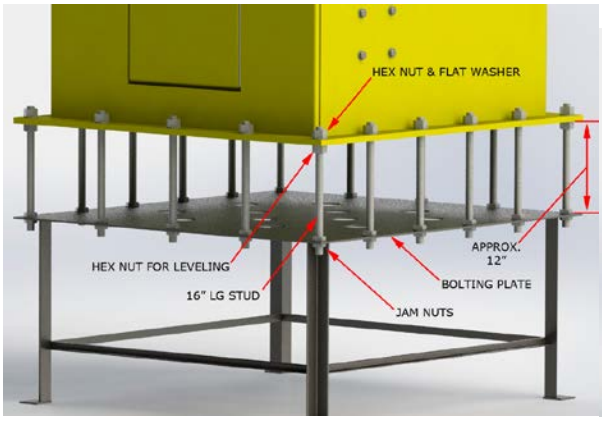
- Mark the outline for the barrier foundation using the dimensions on the GA drawing.
- Deep foundation configuration - 2 separate concrete pads, 36” deep, are poured to support the housing and receiver.

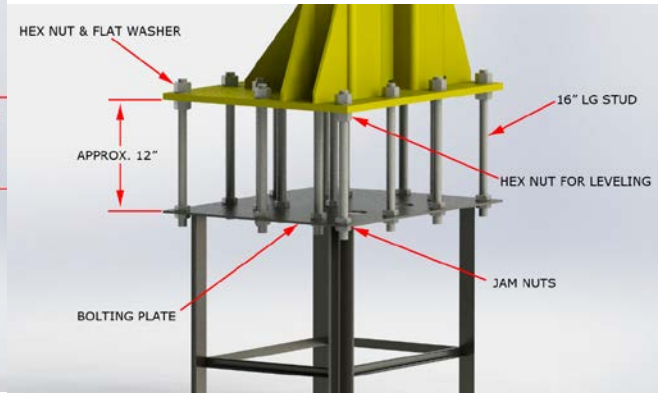
- Shallow foundation - single pad, 12” deep, is poured extending between the housing and receiver.

- Each foundation configuration has corresponding mounting hardware supplied as standard.
- Deep foundation utilizes two bolting stands to support the housing and receiver.

- Shallow mount requires just two bolting plates which provide the support for the housing and receiver.

- Bolting configuration is identical between both foundations.
- Jam nuts fasten the studs in place to the bolting plates. Hex nuts are used on each corner stud to level the housing and receiver 12” above the bolting plates. Then washer and hex nuts fasten the housing and receiver.





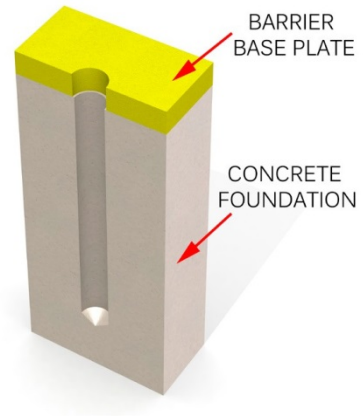
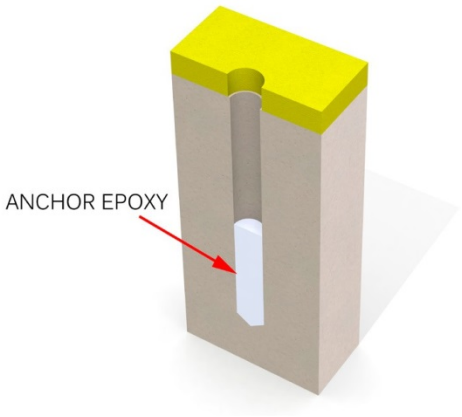
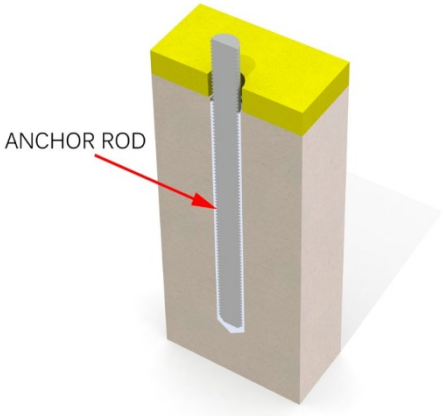
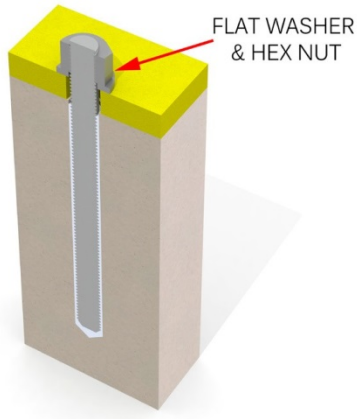
- Foundation stands can be placed into the excavated holes with a crane or other appropriate lifting device.
- Confirm that the top of the corner hex nuts are 12" above the bolting plate.
- Once positioned properly, the housing and receiver can be lowered onto the stands.
- Final leveling can be achieved by utilizing the corner hex nuts.
- Run the conduit piping – Qty four 5" diameter holes (one in each corner of the housing) for conduits
- Once the rebar is in place, form and pour concrete into the excavation area.
- When finished, the concrete's surface should be flush with the roadway surface.
- With the concrete cured, install flat washers and hex nuts and torque to 325 Ft-Lbs. in all locations.

Electrical Connection

- Terminate all site electrical connections for the barrier.

Epoxy Anchor Configuration (Reduced Crash Rating)

- •Another option for barrier installation is to drill into a 12" deep concrete foundation and epoxy threaded rods into place. This allows the foundation to be poured ahead of barrier installation, eliminating the need to schedule multiple contractors at one time. However, this method of anchoring the barrier reduces the crash rating to PU40 P1 (5070 lbs. @ 40 mph.) Hilti HIT-HY 150 MAX Adhesive is used in conjunction with 7/8-9 threaded rod, washers, and hex nuts to secure the barrier to the foundation.
- Position the barrier housing and receiver on the concrete in the desired location and ensure that the barrier arm and receiver are aligned properly. The receiver and housing baseplates will be used as the template to drill the anchor holes. The illustrations below are provided for visualization purposes. It is necessary to reference the Epoxy Anchor appendix to ensure all installation steps are followed per the manufacturer's specifications to achieve best results.

	
(Anchor hole drilled to required depth)	**(Adhesive injected into hole)**
	
(Anchor rod inserted in adhesive)	**(Hex nut & washer torqued after curing)**