



TIE-DOWN SYSTEMS INSTALLATION GUIDE

2020



TABLE OF CONTENTS

EPOXY ANCHOR INSTALLATION	2
ROD AND COUPLING NUT INSTALLATION	6
TOP PLATE INSTALLATION.....	10
TAKE-UP DEVICE INSTALLATION	12

NOTES:

THIS IS A GUIDE FOR CLP SYSTEMS TIE-DOWN HARDWARE ONLY.

INSTRUCTIONS TO THE INSTALLER:

All hardware must be installed according to the instructions in this installation guide and CLP specifications. Incorrect anchoring and fastening may cause a reduction in load capacity. Use proper safety equipment.

EPOXY ANCHOR INSTALLATION

Step 1: Drilling

Drill a hole through base material with a rotary hammer drill tool to the size and embedment required by the selected threaded rod. (See installation specification for the threaded rod in solid concrete base material). The tolerances of the carbide drill bit should meet the requirements of ANSI Standard B212.15.

Precaution: Wear suitable eye and skin protection. Avoid inhalation of dust during drilling and removal.

Note! In case of standing water in the drilled hole (flooded hole condition), all the water has to be removed from the hole (e.g. vacuum, compressed air, etc.) prior to cleaning.



Step 2: Hole Cleaning

Starting from the bottom of the anchor hole, blow the hole clean with the hand pump by Power Fasteners minimum of two times (2x). For larger anchor sizes that are 7/8" to 1-1/4" in diameter use a compressed air nozzle (min 90 psi).

1. Determine the wire brush diameter. (See hole cleaning equipment selection table) and attach the brush with adaptor to a rotary drill tool or battery screw gun. Brush the hole with the selected wire brush a minimum of two times (2x).
2. Finally, blow the hole clean again a minimum of two times (2x).
3. When finished the hole should be clean and free of dust, debris, ice, grease, oil or other foreign material.



Step 3: Preparing

Check adhesive expiration date on cartridge label. Do not use expired product. Cartridge temperature must be between 41°F - 104°F (5°C - 40°C) when in use.

- a. Attach a supplied mixing nozzle to the cartridge and load the cartridge into the correct dispensing tool. Always use a new mixing nozzle with new cartridges of adhesive; and for all work interruptions exceeding the published working time of the adhesive (see gel time and curing time table).



Step 4:

Adhesive must be properly mixed to achieve published properties. Prior to dispensing adhesive into the drilled hole, sedately dispense at least three full strokes of adhesive through the mixing nozzle until the adhesive is a consistent RED color.

- a. Do not attach a used nozzle when changing to a new cartridge. Review and note the published working cure times (see gel time and curing time table in technical resources) prior to injection of the mixed adhesive into the drilled hole.



Step 5: Installing

Fill the cleaned hole approximately two-thirds full with adhesive starting from the bottom. Slowly withdraw the mixing nozzle as the screen fills to avoid creating air pockets or voids. A plastic extension tube supplied by Powers Fasteners must be used with the mixing nozzle for embedment depths greater than 8 inches.

- a. Push the threaded rod into the hole while turning slightly to ensure positive distribution of the adhesive until the back of the tube is reached.



Step 6: Curing and Fixing

Allow the adhesive anchor to cure to the specified full curing time prior to applying any load. This curing time could vary between 4 hours and 48 hours. (Reference gel time and curing time table).

- a. Do not disturb, torque or load the anchor until it is fully cured.



Step 7:

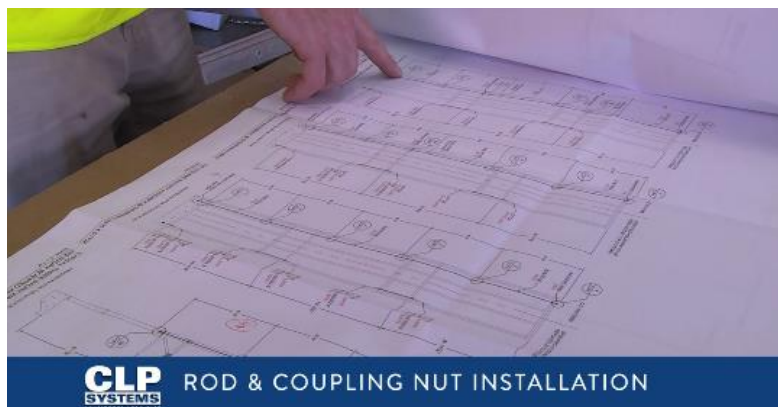
After full curing of the adhesive anchor, the coupling nut can be installed to the anchor.



ROD AND COUPLING NUT INSTALLATION

Step 1:

Check approved plans for locations to install rods and drill holes. Before installing rods check wall sections for dimensions and make sure the proper compression studs are installed.



Step 2:

Drill holes for the threaded rod at each floor. The hole should be large enough for the coupler nut to easily slide through.

Note: When drilling holes you can vary 2" from floor to floor, but no more than 4" overall off plumb from top plate to foundation.



Step 3:

Attach the coupling nut to the end of the rod and tighten until the positive stop dimple is reached. The positive stop in the coupling nut prevents the coupler from over running the center, ensuring maximum design strength through the continuous tie-down system.



Step 4:

Install the threaded rod into the coupler nut. For easy installation run the rod through the next floor or top plate first before connecting the rod to the coupler nut. Then, tighten the rod on the coupler until the rod reaches the positive stop guaranteeing the nut is fully engaged with each rod end.



Step 5:

If required, continue to add coupler and rod until the top level has been reached.



Step 6:

The top plate rod will be cut to length according to plans so the installer does not have to cut rods on the jobsite.



Notes:

Once rods are in place and tightened, most municipalities will require the penetration to be sealed with fire caulk. Please see fire caulk installation for details.

Check CLP Shop Drawings to see if each floor is restrained with a take-up device. If so, install according to plans and refer to the Take-up Device installation video.

TOP PLATE INSTALLATION

Step 1:

The top plate rod is cut so the installer does not have to cut rods on the jobsite.



Step 2:

Refer to the CLP Shop Drawings for proper washer size. Place proper washer over the rod.



Step 3:

The hex nut is used to complete the installation. Attach and tighten the top plate nut with a wrench until the rod is taut. The system should be retightened if necessary, after the building is loaded with drywall.



TAKE-UP DEVICE INSTALLATION

Step 1:

Check approved plans for locations to install the SlackJack® or MiniJack® take-up device.



Step 2:

Refer to CLP Shop Drawings for the proper plate washer size. Place plate washer.



Step 3:

Slide the SlackJack® or MiniJack® take-up device over the rod.



Step 4:

Place the color-coded swivel washer over SlackJack®. Make sure the flat side is up.

The mini-jack will have a standard washer. Place over the MiniJack®.



Step 5:

Install the hex nut and tighten.



Step 6:

Remove pull clip to activate the take-up device. Ensure the pull clip is completely removed and store pull clip as shown for inspection verification.



CONTACT US

The team at CLP Systems is here for you.

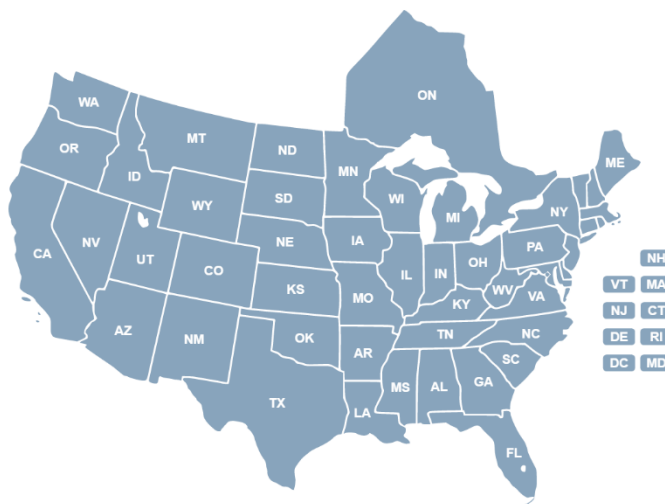
As an organization that is dedicated to providing hands-on service, we place a top priority on training and educating our customers.

If you are interested in being certified and trained on the CLP tie-down system components and installation process, please contact us below.

Phone: 800-214-7673

Fax: 205-443-2050

**1970 Chandalar Office Park Circle
Pelham, AL 35124**



ONLINE TRAINING LINKS

Training Videos:

<http://www.clp-systems.com/training-videos>

Frequently Asked Questions:

<http://www.clp-systems.com/frequently-asked-questions>



TREY TAYLOR | CLP SYSTEMS PROJECT MANAGER

“On-site training benefits installers because they can use this information to pass inspections quicker, reduce material waste, and reduce labor cost.”