



## Installing CH Precision Composite Grounding Spikes



Instructions for installing the grounding spikes in your CH Precision component are outlined in the manual, but in recognition of the fact that, if a thing's worth doing, it's worth doing well, here's a précis version of an article that first appeared on the [www.gy8.eu](http://www.gy8.eu) website. It covers the process in detail, describing just how to maximise the affect of the grounding spikes and thus, the performance of your equipment.

All CH Precision components employ the same mechanical grounding system, based on four, corner-sited adjustable spikes. Those spikes have recently been upgraded to composite hardened aluminium or titanium tips combined with polymer posts. All new 1 Series units are supplied with the new spikes, but owners of existing solid steel spikes can upgrade to the new spikes as a separately available accessory. Dropped through the shafts positioned below the caps in the top-plate of the unit, these allow users to mechanically ground, level or even stack their CH units. The new spikes offer a significant step up in performance, but just how big that step is depends on careful installation, as detailed below.

- Select the supporting surface and ensure that it is as level as possible. If it is not the top shelf of a rack, ensure that there is sufficient space above the unit to reach in with the supplied screwdriver in order to adjust the spikes and replace the top caps.



- The supporting shelf should ideally be lossy in nature. Composite materials, plywood or bamboo shelving all deliver excellent results.
- Avoid glass or hard surfaces such as marble/granite. These will tend to reflect energy back into the unit rather than dissipating it. If they represent the only option, you can experiment with the polymer surface protection glides supplied with the machine, or simply use a laminated bamboo board between the spikes and the shelf.
- Before placing the D1.5, remove the top caps using the suction cup provided. Insert each grounding spike in turn, first coating the threads with a lubricant or anti-binding compound. Lithium grease – used to assemble bicycle and engine parts – is a good option. Copaslip is better – sonically and mechanically – but you need to be aware that it has a habit of covering anything it comes into contact with in orange blotches and stripes, so be careful to keep it on the threads only and off of your fingers or surrounding surfaces!
- With the spikes installed turn each one until it engages the thread at the bottom of the shaft and then position the D1.5 on the selected surface.
- Use the screwdriver to wind each spike down until it contacts the supporting surface (you'll feel it bite). Now turn each spike one complete turn to lift the D1.5 clear of the shelf .
- Now you are in a position to level the D1.5 precisely. Use the most accurate spirit level (bubble or digital) that you can find. I use a Mitatoyo digital machinist's level, backed up by a super sensitive bubble gauge.
- With the unit level, it is EXTREMELY important to ensure that each of the four spikes is loaded equally. You can do this by turning them very slightly and feeling the resistance. They should all feel the same. If in doubt listen and adjust: you will definitely hear the difference!
- Finally, replace the top caps. These need to be securely tightened using the suction cup.

#### Protecting your shelves and upgrading your spikes...

If you have furniture finished shelves and you want to protect them, you can place footers between the spikes and the shelves, but the choice of footer is critical. Commercially available two-part titanium or stainless-steel footers work well, while aluminum footers can also work, but be aware that the sound will be affected by your choice, so discuss your options with your dealer and be prepared to experiment.

We have gone through this in detail as the process, as noted above (including, perhaps even especially, the levelling) applies equally to all CH units: Whether installing a new unit or upgrading an existing one with the new spikes, these are the steps you should take.