

ON-LINE TECHNICAL ASSISTANCE

Frequently Asked Questions about cowling fastener installation

Q. *The grommet holes in my Cessna 172 cowling seem to be oversized. What can I do to re-size the hole?*

A. The 4000 series grommet holes (SK-OS, SK-HS, SK-GS etc.) all require the same diameter hole 15/32 “ (.468 inch) or just under a half inch. If the hole is drilled oversize or if normal wear and tear causes the hole to enlarge there are two (2) fixes:

1. Rivet in a .032 aluminum doubler and re-drill the hole to the correct size.
2. Order the Skybolt backing grommet (P/N: SK-R531) which allows you to drill out the existing hole to .531 inch whereby you can then put the backing grommet on the backside of the SK-OS grommet, snap on the retaining ring and problem is solved. The backing grommets also come in .560 inch and .590 inch sizes. Beyond those sizes you'll need to do a significant repair job.

Q. *I've begun to notice a black discoloration on my cowling just aft of the stud/grommet hole. What is it?*

A. Well, it could be one of several things. Lets talk about them one at a time. First, if your engine has a small oil leak at the push rod tube seals it could be oil being forced out through the stud and grommet. Most Cessna's use a “pressure cowl” cooling system and in-flight the internal pressure can be between 10 and 30 psi enough to force hot oil through a lot of tiny spaces. Second, a tiny fuel leak will produce just about the same effect. Third, everything about the forward part of your aircraft is in some kind of dynamic motion. It is not unusual for the upper and lower cowlings to move slightly

and this movement can cause “fretting” of the aluminum in the cowling which is reflected by aluminum “dust” showing up on the outside of the cowling aft of the fasteners as a “smut” or stain.

- Q. *I’m having a little problem with the firewall platemounts. The little black pin came out and I’m having trouble putting it back in. What am I doing wrong?***
- A. Trying to put it back in! It shouldn’t go back in! The black plastic pin is a “shipping pin” to hold the locking mechanism open so you can do the initial adjustment. After the initial adjustment throw the pin away it has no further use. In the future if you have to make an adjustment use a dental pick or a straight pick probe to open the locking mechanism and make the adjustments in accordance with the instructions that came with the kit.
- Q. *I bought the Skybolt Cloc Kit for my Cessna 182P and there are no adjustable receptacles in the pack. What happened to the receptacles?***
- A. Good question! We don’t send receptacles with that kit. When we designed the kit for the 182P we designed it as a “replacement kit” because your aircraft came from the factory with Camloc’s™ installed on the cowling. In order to make the kit more affordable we decided to use the original receptacle and received our FAA STC under that standard.
- Q. *I bought the Skybolt Cloc kit for my Van’s RV aircraft that I’m building. I’ve heard that because you send the floating receptacle the top cowling will move back and forth because of that. Is that true?***

- A. No it's not true. Think about the mechanics of that statement. The purpose of the floating receptacle is to assist the Cloc stud in "centering" into the receptacle housing. Once the stud is engaged the spring loading in the stud cup pulls the stud/grommet inwards towards the receptacle thereby making a "hard docking" action. In addition the rear of the top cowling is fastened at the firewall and does not allow fore and aft motion to occur. On top of that the nosepiece just behind the propeller spinner bulkhead should be fastened with machine screws and platenuts to further prevent any fore and aft motion.

We think very highly of Van's aircraft and have over a hundred operating in the field and we've had nothing but good comments about our product.

- Q. *I read somewhere that your Cloc fasteners are TSO C-148 FAA approved does that mean I can put them in without a Form 337?***

- A. Whoa up a bit. Yes our Cloc, Zloc and Aloc fasteners are TSO C-148 approved as a direct replacement for the other companies' brand of fasteners. This means that if you have a Camloc™ you can install a Skybolt Cloc fastener without filling out an FAA form 337 for a field approval. It does not mean that you can take the Southco™ fastener out of your C-172 and put in a Skybolt Cloc fastener. This is known as an alteration of the airframe and requires an STC (Supplemental Type Certificate) or an FAA Field Approval for your aircraft to meet Airworthiness requirements. That is why we call our Cloc Kits for C-172 and other aircraft a *Conversion Kit*. It means that you are converting (altering) from one type of fastener to another and you need some kind of authority (STC) to do that.

Note: Camloc is a registered trademark of the Camloc/Ram Products.

