



# MANDATORY SERVICE BULLETIN

DATE: December 15<sup>th</sup>, 2011

SUBJECT: Fuel selector handle supplied by Cleaveland Aircraft Tool (RVFS-1), Van's Aircraft (FUEL VALVE LEVER II), & SteinAir (FUEL KNOB) Failure due to improper installation. This handle can be identified by a threaded set screw which keys onto fuel valve shaft.

TIME OF COMPLIANCE: **Prior to further flight, check set screw 'key' for proper installation.**

This service bulletin pertains to the valve handle described above, designed to be used with both early and late model RV installations. This variance makes it necessary for the customer to choose to put the set screw key either in the forward or rear position based on the installation of the valve and plumbing. **THIS SET SCREW MUST BE INSTALLED WITH LOCKTITE THREADLOCKER (RED) TO PREVENT FAILURE DURING FLIGHT.** This step (step #6 in installation instructions) should be done immediately upon removing handle from packaging. The handle can still be removed from valve after this 'key' is set into place. The only reason to ever move this key is if you were to switch aircraft. Please read Step #7 in the installation instructions for more information on how this keys onto the TAPERED valve shaft. Instructions can be downloaded at: [www.CleavelandTool.com/instructions/rvfs1.pdf](http://www.CleavelandTool.com/instructions/rvfs1.pdf)

## REQUIRED ACTION:

1. Remove handle from fuel valve by taking out Phillips head screw on top of the handle. This handle has a tapered pocket on a tapered shaft, so some force straight up will be required for removal.
2. Once off of the valve, use a 3/32" hex head tool to attempt to remove the set screw from the handle. The set screw on the handle should not move, if it moves in any way it should be removed and the following step should be followed. If the screw does not move go to step 4.
3. With the set screw out inspect the end of the screw. The screw should be flat on the end with a width of 0.1" which is similar to the width of the flat spot on the valve shaft. If either the valve shaft or the set screw has less than 0.1" it should be filed (shaft) or ground (set screw) until it meets the 0.1" spec. The set screw should have Red Locktite Threadlocker installed on the entire length of the set screw and reinserted according to step #6 on the installation instructions referenced in the link above. After curing recheck as in step 2 of this service bulletin.
4. Once certain of the locked set screw key, we recommend one of two steps as extra insurance against the unlikely event of locktite failure.
  - a. Use a second 10-24 set screw inserting behind the first, and jamming up tight to the first.  
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  - b. Fill the remainder of the threaded cavity behind the set screw with epoxy to prevent any possibility of the set screw backing out.
5. Once locktite/epoxy is cured reinstall handle according to installation instructions step #7. Note again, that this is a tapered shaft. Install by lightly turning handle on shaft back and forth as the handle further seats on this taper. When rotational 'play' has ceased, install the Phillips head screw and tighten to about 15 inch-lb.
6. Periodically check handle prior to flight to make sure the top screw is tight, and that there is no rotation in reference to the shaft.