

VAN'S AIRCRAFT

TOTAL PERFORMANCE

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AFS Canopy Warning Read-Me

01/20/17

Although this read-me file is written in the context of the RV-14 it also is a starting point for application on other RV's as well. A switch may be installed in the canopy latch system that is normally open when the canopy is open. When the canopy is closed and latched the switch should make a connection to ground. See the example circuit in Figure 1.

The canopy warning .gca file enables the switch installed on RV-14 Page 38-32 to report through the EFIS when the canopy is not closed and latched. Above 1500 rpm if the canopy latch is is open (see caution statement below) both an audible warning and visual warning on the EFIS screen will be given.

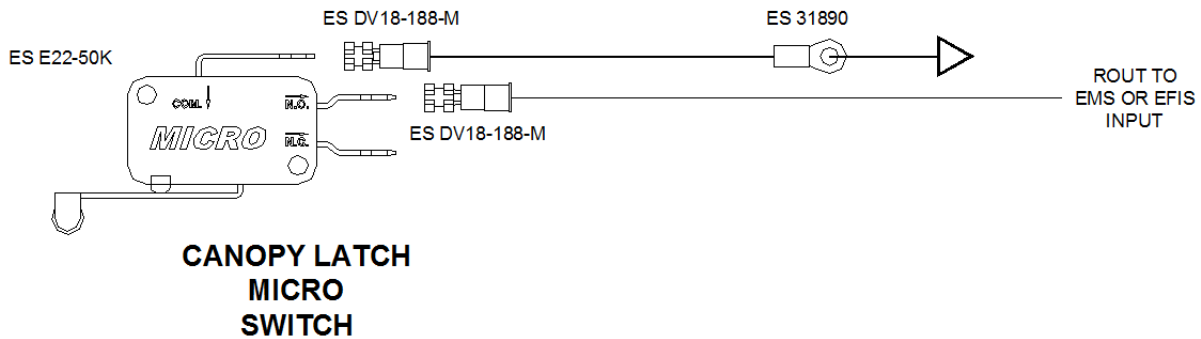


FIGURE 1: EXAMPLE CANOPY LATCH CIRCUIT

NOTE: WH-00125 available from the downloads page of the Van's Aircraft Web site may be a useful reference.

Step 1: Install the WH-00126 Left Dash Mount Harness provided in the RV-14 Canopy Wiring Harness Kit.

Step 2: Install a wire from the C414J 12 position Molex connector (that connects the canopy harness to the airframe harness) to "Input 1" on the PFD EFIS main connector. Note that warnings from the input pins are not shared between screens and therefore the wire must be connected to the Pilots primary flight display. See your AFS installation manual and or the AFS RV-14 Quick Panel Installation Manual for further reference.

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Step 3: Enter calibrate mode and edit the “Inputs” page.

Configure Input 1 as shown below by selecting “CANOPY” under usage, “Norm Closed” under logic and “ABOVE 1500 RPM” under audio.

Save and exit calibrate mode and wait for the EFIS to reboot.



Step 4: Place the aircraft in a safe run-up area. Apply brakes and if required chock the aircraft. With the engine at idle unlatch the canopy. While holding the canopy handle located at the top of the canopy bow (use a helper) increase the RPM above 1500 RPM. Check that the canopy latch visual and audio warnings are given.

Pull the throttle to idle. Latch the canopy and again increase the RPM above 1500 RPM. Check that the canopy warnings are not given. If necessary adjust the switch installed in Section 38.

Check that C-01453 and C-01454 have been installed. These parts were not available for early kits. See RV-14 Page 38-37 and 38-38.

When the aircraft is flying, test at speeds up to Vne that the canopy warning does not come on inadvertently. Aerodynamic pressure in flight will cause the canopy to distort slightly and may cause the switch to become disengaged by the latch pin. Adjust the switch as necessary.

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CAUTION!

In all installations the canopy warning should not be the only means of checking that canopy is latched. A visual inspection of the canopy latch is still required.

The following pertains to RV-14 canopy latch systems. As mentioned above, the in flight the canopy switch may become disengaged and cause a false canopy warning. Final canopy switch adjustment to prevent disengagement of the canopy switch in flight may result in the canopy latch handle not being fully closed when the canopy switch engages (see Figure 1 below). This should be noted in any checklists.



FIGURE 2: CANOPY LATCH PRE ENGAGEMENT OF CANOPY SWITCH



FIGURE 3: CANOPY SWITCH