

VAN'S AIRCRAFT

TOTAL PERFORMANCE

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Service Letters and Bulletins: www.vansaircraft.com/public/service.htm

G3X Touch 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.

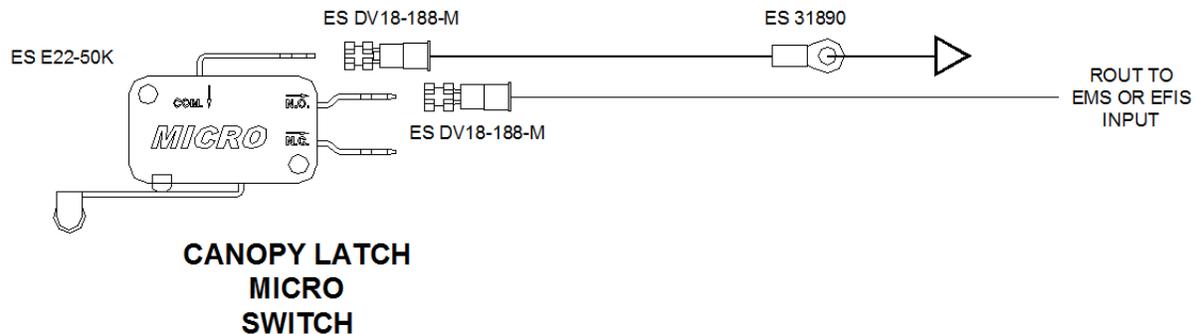


FIGURE 1: EXAMPLE CANOPY LATCH CIRCUIT

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 1700 rpm if the canopy latch is open (see caution statement below) both a visual and audible warning will be given on the EFIS screen. The audible warning will repeat 10 times.

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 Pin 12 of the C414J 12 position Molex connector (that connects the canopy harness to the airframe harness) to the Garmin GEA 24, connector P244 Pin 42 "Discrete 3".

NOTE: When downloading right-click the file name and select "save target as". Left clicking will load the file in your browser and when saved will add browser formatting to the file that will render it unusable.

Step 3: Download the latest configuration file "Canopy Warning RX.gca" from Van's web site.

Step 4: Insert a SD card (blank with all files removed for best results) into a card reader (or SD slot on your laptop or computer).

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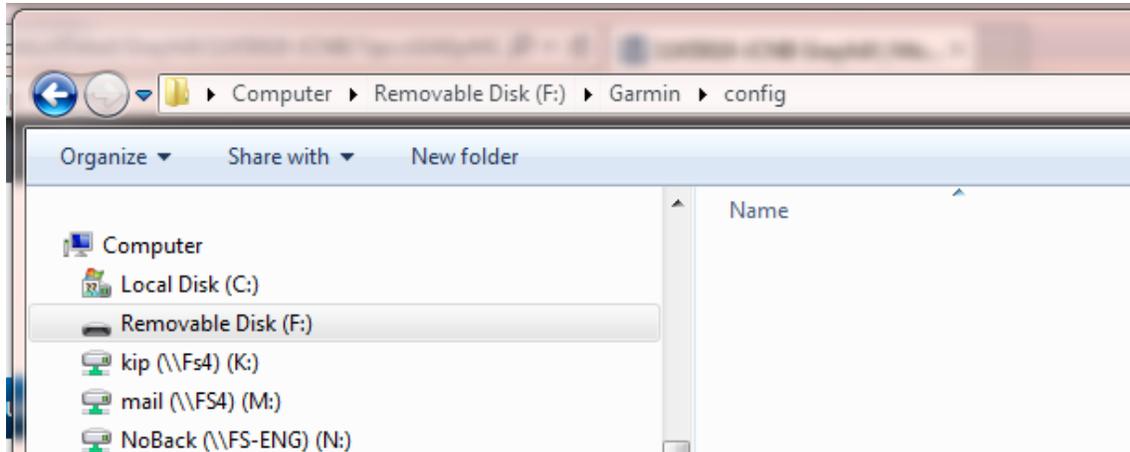
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Step 5: Make a folder on the SD card named “Garmin”.

If a folder named “Garmin” already exists then skip to Step 6.

Step 6: Inside the folder named “Garmin” make a new folder named “config”.



Step 7: Place the “Canopy Warning EX.gca” file inside the “config” folder.

Step 8: Insert the SD card into the SD card slot on the front of the G3X Touch display in the aircraft.

Step 9: Hold down the “MENU” button on the front of the display then turn on the master switch to turn on the display. Continue to hold the menu button down until the configuration message appears above the word Garmin. The screen will then boot to the main configuration menu.

Step 10: Inside the main configuration menu touch the button named “config”.

NOTE: It is only necessary to load configuration files onto the PFD if a dual screen installation is installed. The settings will automatically be pushed to the MFD.

Step 11: The configuration files located inside the “config” folder will be listed. If the files are not appearing this is because the SD card in use is not compatible with the G3X Touch or the file has been corrupted in some way. Older SD cards may not be compatible with the G3X screen. If G3X Touch is not able to view files on the SD card purchase a new SD card. Garmin recommends using an 8GB SanDisk SD card.

Check the box near the “Canopy Warning RX.gca”. Agree to install the settings.

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Step 12: 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 1700 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 1700 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 V_{ne} 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 1: CANOPY LATCH PRE ENGAGEMENT OF CANOPY SWITCH



FIGURE 2: CANOPY SWITCH