

## VP-200 Version 17 Upgrade Instructions As of v 17.2.J

### Experimental Software Notice

With experimental software you should always do your own flight testing in VFR conditions until you are satisfied with the software's stability and functionality. Be sure to read and understand the full software installation AND test procedure described in the Installation Manual.

If you are updating over multiple versions, make sure to read the change notices for all versions between your current version and the version you're loading.

Refer to the VP-200 Installation and Operating Manuals for details on new features.

### General Notices

Before the initial configuration of your system, we recommend updating the software to the latest stable release.

Whenever you see Configuration Change in the change lists below, that means there is a new parameter to configure in the setup menus.

In software versions 16 and later, you may see "Database Key Mismatch" during the initialization sequence after installing a new version of software, which would normally be indicative of a corrupted database file. In these cases, however, it indicates that new configuration settings are available. Press the 'Ignore Fault' soft-key so you can properly configure the new settings. If you see a similar error after you've updated the settings, call technical support.

Installing a previous version of software will result in the loss of configuration of items associated with the latest version installed on your system. If you return to a later version, you will have to re-configure those items. We recommend storing separate exported data files for each software version just in case you downgrade an older version.

### Version 17.2 Changes:

- New mechanism for displaying Annunciators. This includes annunciators for system faults (e.g. over voltage condition, device short circuit), engine alerts (e.g. oil temp in red zone), and user-based annunciators (e.g. baggage door, co detect).
  - Master warning light for when certain faults/user annunciators are active.
- Flap and Trim indicators show YELLOW when they are disabled and RED when faulted
- Backup switch inputs on Control Unit J5 connector reflect their power state on the Device List.
- New setup for Engine Gauges
  - Separate Engine Menu
  - New format to set up engine gauges
  - User-settable parameters for engine annunciator
  - Instrument layout for arc gauges moved to Engine Menu
- Stronger engine data filter used to reduce false-positive engine alerts.
- Manifold Pressure and CHT/EGT gauges have settable red/yellow alert zones as well as min/max values.
- Shutdown timer behavior changed
  - Timer turns yellow when there is 1 minute left in the countdown; red when there is 30 seconds left.
  - Shows timer defer keys when there is less than 30 seconds left in the countdown
  - You can 'reset' the timer via the remote fob (press any key) or by changing screens
- Starter safety control.
  - On startup, the system closes the EBUS for a half second before anything else is powered. If the starter contactor is failed closed, the starter will draw current through the EBUS fuse

and blow it. This protects the prop from spinning un-commanded if you turn the system on while you are outside of your aircraft.

- The new annunciator system will also allow you to set up an alert for whenever your starter is active. We recommend setting this up. See the installation manual for details.
- Clear Fault under the Device List Menu has changed to Reset Fault.
  - The fault will clear and the system will restore the power state based on the current mode
- OAT temperature
  - Some EIS systems need a 50 degree delta; the pilot will need to specify if this is the case for their EIS.
- Magneto switch
  - There's a setting to specify whether your VP200 Switch Panel has a Magneto Switch.

## Version 17.2 Installation Instructions

*Warning: failure to update your VP-200 using these instructions may result in loss of configuration settings.*

Additional instructions are available in the VP-200 Installation Manual.

Perform the following steps:

1. Download Version 17 from the Vertical Power web site onto a thumb drive.
2. Export your current settings to a USB thumb drive. Back this up on a separate storage medium.
3. Install Version 17 using Options -> Setup -> Software & Settings -> Update Software
4. After powering up after the installation, the system will report a Database Key Mismatch. Press the Ignore Fault Key; press the OK key after the system finishes the startup procedure. *The key mismatch should only occur this one time. If you get it in the future, we do not recommend flying until you can resolve the problem and the system goes through a complete "clean" startup.*
  - a. **DO NOT IMPORT YOUR OLD SETTINGS.** There are a few changes to the settings files that inhibit an import with settings associated with software prior to V17.

*Notice: If you have yet to specify any settings for your VP-200 system, see the Installation and Operator's Manual for details on setting up your VP-200. The following instructions are only for setting up the new features since Software Version 16.2.*

5. When the Pre-Flight screen is displayed, you will see an **INCONSISTENT** annunciator in the bottom right corner of the screen. This annunciator is a reminder that there was some type of synchronization error during startup. For now, you can ignore that annunciator. See the Operator's Manual for more information on the INCONSISTENT Annunciator.
6. Options->Setup. This will bring you to Enter Admin Code screen. Enter your administrative code.
7. Engine Menu
  - a. Engine Setup
    - i. Magneto Switch - select the appropriate value based on whether your VP-200 switch panel has a magneto switch
    - ii. OAT 50 Degrees Off – some EIS systems will be off by 50 degrees as displayed on the main screen of the Display Unit. If this is the case, select 'Yes'; the default is 'No'.
    - iii. Save
  - b. Engine Gauges
    - i. For most gauges, some of the data will be from your last setup. For a few gauges (CHT, EGT, and Manifold Pressure), the setup will be at their defaults.
    - ii. Set the alarms – by mode – for each gauge. **VERY IMPORTANT**. The default is the alarm is off.
    - iii. Make sure to Save Gauge after configuring each gauge.
    - iv. Save & Exit when you are done.
  - c. Exit from the Engine Menu when you are done setting up your engine gauges.
8. Device Menu-->Starter & Cross-Tie Setup
  - a. There was a small user-transparent change to the way the starter settings are saved. Press the Save button to save your settings.
9. Annunciator Setup
  - a. This setup screen will allow you to configure user-based annunciators. Details are in the latest installation manual.

## Annunciator Setup

**Label** Starter  
**Unit** CU  
**Unit #** 1  
**Pin #** Active High J5P12  
**Master Warning** Yes  
**Latch Alarm** No  
**Audible Alarm** No  
**Flash Label** No  
**Label Color** WHITE

Preflight	Beforestart	Start	Afterstart	Taxi	Runup
Alarm	Alarm	Alarm	Alarm	Alarm	Alarm
Takeoff	Cruise	Maneuver	Landing	Postflight	
Alarm	Alarm	Alarm	Alarm	Alarm	

New      Delete      Save      Save & Exit      Exit

- b. Set the desired parameter for each of the following, for each annunciator.
    - i. Label      Type in the text for the label. If it too long you can shorten it later.
    - ii. Master warning      The master warning light flashes when the specified pin is active.
    - iii. Latch alarm      Once the annunciator is triggered, it will stay on until acknowledged by the pilot.
    - iv. Audible alarm      A double beep is played in the headset when the annunciator is shown.
    - v. Flash label      The annunciator is flashed three times then goes steady
    - vi. Label color      Choose from the available colors
    - vii. Modes      Set the mode when the annunciator will appear. For example, you may not want a door annunciator to show in Pre-flight and Post-flight modes.
  - c. Make sure to Save each annunciators after you have created or changed it.
  - d. Save & Exit when you are done.
10. Software and Settings
- a. Export Settings – Export your settings to the USB thumb drive. Power Cycle when you are done. We recommend backing up your settings to another storage medium.
11. After the system reboots, it should take you to the Pre-Flight screen automatically.
12. As always, verify the behavior of the system before your next flight.

### Known bugs as of v17.2 release:

- If you have to reboot the Display Unit during an emergency, the screen will restore in a non-emergency state.
- If a device is turned on or off manually with the switch panel, then a loss of communication occurs, you will not be able to turn the device on or off from the display unit (i.e. you can't override it).
- For Electrical Configuration #4 (dual bus/dual battery/dual alternators/dual Control Units), if both battery contactors fail, all devices will power off.
  - Similarly, if one contactor fails, and the cross-tie is opened later, the devices on the control unit whose battery contactor failed will turn off.

- The Switch Panel may not power on when the rest of the system powers on. If this occurs, power-cycle the system and the Switch Panel should power on with everything else. This is a very rare occurrence. Contact tech support if it occurs.
- If connected to a Garmin 430, on rare occasions the modes may not switch automatically. This is because the data input has “frozen”. Continue the flight by manually cycling through the modes. Please report problem to VP tech support.
- The Display Unit’s screen may not display due to the backlight not turning on. If this occurs, power-cycle the system and the Display Unit should display properly again. This is a very rare occurrence. Contact tech support if it occurs.
- If communications are restored with the Control Unit after a loss of communications condition, there is no aural alert. The display will change visually to show restored communications.