



VMS 350
6-Button

Owners Manual



Getting Started

Automatic Video Mode

Whenever the blinkers are on, or when the coach is in Reverse, the unit automatically switches from [keyboard options] to the all-video display mode.

The VMS 350 Keyboard

The VMS 350 is controlled by a small keyboard. The large knob can be turned left or right and is also be pressed. Think of this knob as being the “mouse” pointer for the computer – it's the main way one provides input into the system.



The keys all have specific functions as briefly shown here. Expanded details begin on page 8. While the VMS-350 is quite versatile, only the installed options will be accessible, based on your units' configuration.*



View

Pressing this changes screen display; either vehicle information, camera image or both. Pressing it repeatedly cycles through the 3 different viewing modes.



House

This key cycles through the set pages of house data to include the Installed Tanks, Generator, AC and DC Power and Floor Heat monitors.* [For Forced air HVAC, See THERM.] These pages are described later in this manual and include configuration settings, beginning on page 5.



Home

This key always returns the system to it's “home page”. This key overrides all other keys to return the system to the main gauge screen. A second press enters the Configuration screen and is covered in depth later on.



Therm

This key enters the heating, cooling and ventilation pages.



Chass

This key enters into the three sets of helpful chassis screens. These are the Tire Pressure page[s]*, Chassis Statistics and Metrics on the Second page, and Diagnostics on the Third.

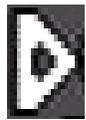


Trip

This key presents current trip statistics and the ability to reset or view prior trips.

The Cursors

Turning and pressing the knob controls the “cursor” icon on the screen. The cursor has two modes. Pressing the knob switches the cursor from one mode to the other.



Navigation

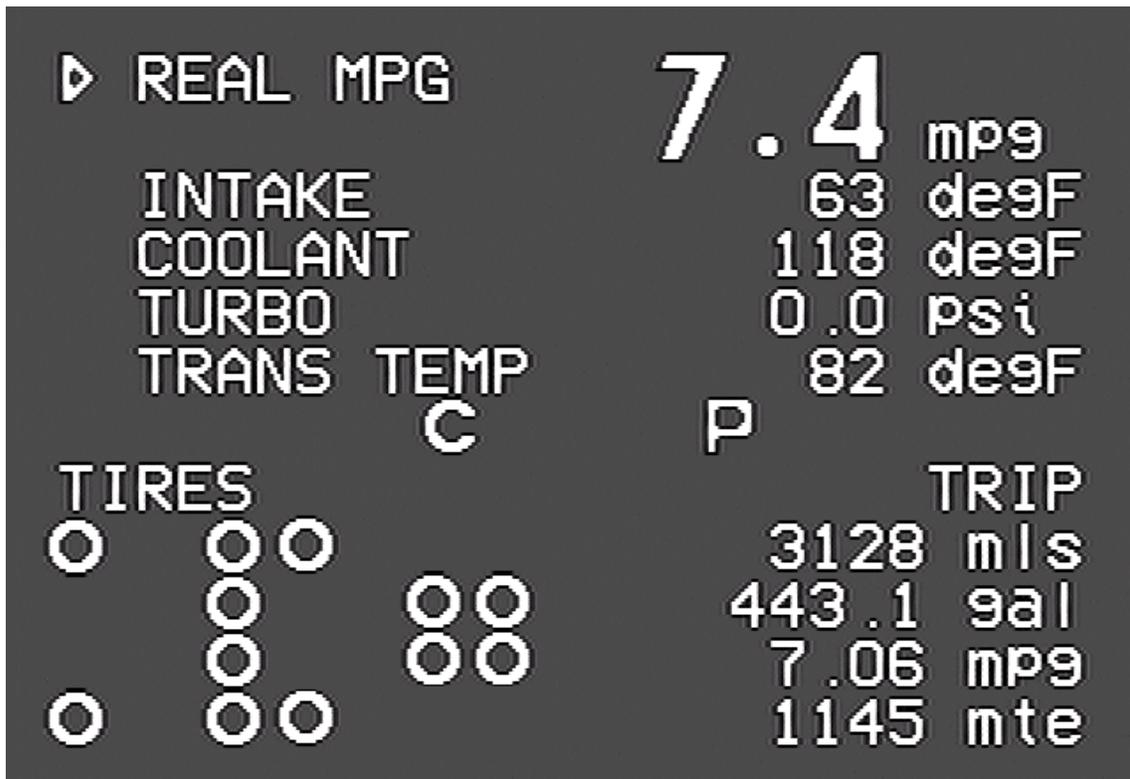
When the cursor has a triangular shape, turning the knob will move the cursor up or down the page.



Adjustment

When the cursor looks like an arrow pointing at its tail, turning the knob will adjust the setting the cursor indicates.

Home Screen



Home Screen



This screen displays the most popular and important features at one glance. The screen has two pages or sections; Gauges and Configuration Management. First page one lands at is Gauges which include Status.

Gauge Section (upper)

The top portion of the screen displays five different engine and transmission parameters per 'page.' Three unique pages then allow for a static choice at the top, such as SPEED, and four others below it. Use the knob to change which items to display by turning the knob, selecting a gauge and pressing it. Turn the knob again to select another gauge, then press the knob to complete the selection.

Note: Due to variations in engine configurations, some of the gauges included in the VMS 350 may not be supported.

Whereas most of the gauges are read directly from the engine and transmission, a few gauges are unique to the VMS 350. In particular, the *Recent MPG* and *Real MPG* are special data items calculated by the VMS 350 to help get the best possible fuel economy.

Real MPG shows the fuel economy over roughly the last minute or so, and is intended to allow for adjusting driving technique to realize better fuel economy with headwinds and hills. *Recent MPG* shows the fuel economy over a much longer period, and provides a good indication of when driving strategy is working overall.

Near the center of the screen are Temperature and two icons. The latter indicate the status of two key driving parameters:

Temperature: —°F relates the ambient outside air temperature (when a sensor is installed.) Dashes indicate sensor/ wiring malfunction or not detected.



When the cruise control is On but not Set, it displays as a small 'c'. When the cruise control is Set, it becomes a large 'C'. If no icon is present, Cruise is off.



The *Transmission Mode* icon indicates whether the transmission is in “Performance” or “Economy” mode by displaying letters P or E. The mode can be changed by pressing the “mode” key on the shifter pad. Driving in “Economy” mode, all the time, significantly improves fuel economy at no loss of performance.

Tire Section (Lower)

When Tire sensors are installed a map is shown. It's birds-eye view as though coach is driving to the left. See pg.9 for details on Temperature, Pressure, Leaks and Faults regarding individual tires.



This icon indicates that no problem has been detected with this particular tire.



This Caution Icon indicates that the pressure in the tire may be below the set point for the monitoring system in use. For PressurePro, it's 12.5% lower than than target. For Valor, it represents a lower-than-set-point--as programmed by the coach manufacturer. It can also mean the sensor battery is low or the sensor temperature is overly hot.



This Warning Icon indicates the tire may be significantly below target. For PressurePro, this may indicate a pressure 25% below the target. This will also trigger an audible buzzer which will buzz until a key [any key] is pressed or the knob is turned.

Note that the target pressure is the pressure detected (or programmed in) when the tire sensor is installed on the tire. For more details, see the Tire Screen section. PressurePro models may be configured there but Valor cannot and must be factory serviced.



This icon indicates that no data has been received from the indicated sensor. If this icon persists for more than a few minutes the sensor should be checked.

To check the actual tire pressures and to get additional detail, press the Detail key until the Tire Screen appears. See below for more information.

Important Notice

Electronic Tire Sensors, when installed, transmit the individual tire pressures to the Monitor via Radio Frequency (RF) signals which can then be displayed in real-time. PressurePro Sensors read tire pressure every 7 seconds and transmits the updated readings to the Monitor. Some of these transmissions will be interfered with. Because of this nature of RF no guarantee of signal reception can be made. PressurePro is not meant to function as a precise pressure gauge or a low pressure indicator. PressurePro is a tire pressure monitoring system that displays tire pressures and which, when a signal is received, will signal low pressures.

Configuration Screen



This screen appears with a second knob-press. It allows for adjusting the time and date, view engine diagnostics and other details, and access other features of the VMS 350.

Adjusting the Time and Date

Turn the knob to point the cursor at either the Time or Date, then press the knob. A portion of the time or date will start blinking, and turning the knob will adjust that value. Press the knob again to adjust the next portion, and continue until done.

Other Menu Items (for installed and base equipment options)

- *View Engine Diagnostics.* This item displays a screen showing diagnostic data from the engine. Current faults are displayed along with a history that can be scrolled through.
- *View Engine Information.* This item displays a variety of additional engine statistics.
- *Configure Tire Sensors.* Displays the Tire Pressure Details screen.
- *Units.* This allows selection of English or Metric. There are three settings. “English” sets all units to report in English units (miles, Fahrenheit, gallons, etc..). “All Metric” sets all units to Metric (kilometers, Celsius, liters, etc..). “Metric Distances” sets only the speed and odometer units to metric, and is convenient when driving in Canada or Mexico.
- *Zero Trip Odometers.* Resets the trip odometers, making it as though the trip odometers were last reset the day the vehicle was built.
- *Clear Trip History.* Clears all trips from the trip history.
- *Clear Diagnostic History.* Clears all diagnostic codes from the diagnostic history.
- *View Communications.* For troubleshooting during installation.
- *Tweak Display.* This allows optimizing the VMS 350 viewing by shifting the screen slightly and changing brightness and contrast.
- *Adjust Fuel [Sensor] Settings.* Allows fine tuning or 'skewing' the fuel readings. This adjusts how MPG is factored or to build-in a 'reserve' fuel buffer.
- *Restore Default Settings.* This returns the unit to its factory defaults.
- *Reboot.* Restarts the unit.
- *Installer Options.* Allows technician access to certain advanced options, usually accessed during installation.

Expanded Keyboard Help

Helpful Hint: N/D means Not Detected or not installed; if installed it may be having problems.



View

Three modes as covered in the beginning.



House

The top five items; TANKS, GENSET, AC POWER, DC POWER and FLOOR HEAT each have corresponding menus which appear in the lower half of the screen. As the item is selected its expanded upon (by pressing the knob.) Command and control of the options (displayed in further windows) can then be had—unless its a status. A status could be 'Activated' or "N/D" for example; where N/D indicates an option not installed or not detected.

TANKS: Water System Controls and status*. Main window shows Pump status and Tank levels. Press the knob to manually operate the Water Pump, Activate/Disable Autofill or <QUIT> to return to the previous menu.

GENSET: Generator Controls and status*. Main window shows Name & Type of Generator, Running Hours and, if equipped, Automatic Generator Start (AGS) status. A second knob-press enters the two pages Setup Parameters: Charge Times, Voltage-Dependent events and Exercising Schedule. It also Allows for manually setting the Start-up and Running processes.

AC POWER: This brief summary page gives Transfer Switch status.* The measured current draw (in Amps) and Voltage are available here at a glance. Just below that is the frequency [Hz], also measured at the switch; whether shore power or generator output. No additional pages are needed.



Therm

Three menu pages allow for setting unique heating and cooling schedules for day and night. Alternatively, a schedule can also be created for those times while away. Note that *when* 'Night' and 'Day' begin can be changed on the last page. This particularly useful for early risers.



When installed, the first page begins with Tire Pressures as seen from a birds-eye view, coach heading to the left. Like the Drive screen, icons may replace tire pressure values if there are tire problems.

A knob-press expands the view of the tire status to show the current pressure, temperature, leak-status and detected fault of each tire as its selected [use the knob]. The top half of the screen is otherwise identical to the Tire section of the Main ['Drive'] Screen.

Tire Configuration

This second screen also allows one to move, delete, or add tire sensors.

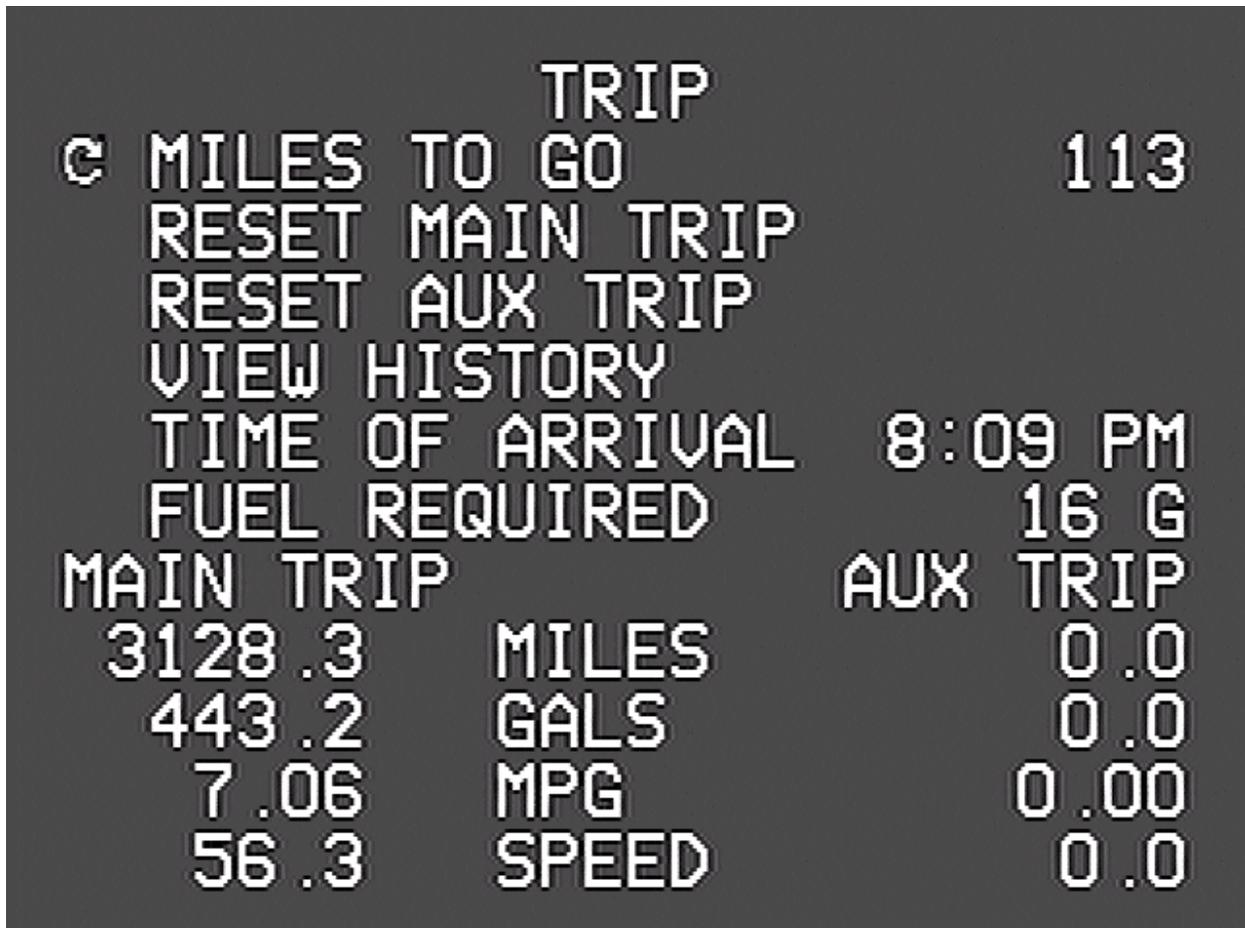
Use the knob to move from tire to tire. The top left position corresponds to the curb-side front tire. On the bottom half of the screen the detailed information on the indicated tire sensor is displayed. The data items include:

- PSI. Tire pressure.
- Deg. Tire temperature, within 40 degrees Fahrenheit.
- Target PSI. The target pressure, which is the pressure when the sensor was placed on the tire.
- Signal. The signal strength. Values less than 40 when the vehicle is stationary indicate that sensor reception might not be reliable.
- Counts. The number of tire reports received.
- Status. There are several possible status values. "New" and "Seen" are normal values indicating that the sensor has been detected. "Lo Bat", "Lo PSI", "Hi PSI", "Hi TMP" all indicate high or low battery levels, tire pressure or temperature. "Signal" indicates the sensor is not being received reliably.

To install a new sensor, move the cursor to the desired position, then press the knob. Screw the sensor on the tire. Within 30-60 seconds a "No Data" icon should appear in the desired position, and shortly after that a regular tire icon appears. It can take up to five minutes before all the tire data, such as signal strength, is collected for the new sensor.

To delete a tire, move the cursor to the desired position and press the knob.

To move a sensor from one tire to another, delete it from the original position, then follow the installation procedure just described. The sensor itself should be physically removed and allowed to sit for about two minutes before being reinstalled.



Trip Screen

The first "Detail" screen displays information on the current trip. The unit tracks two trips simultaneously. One might use the main trip to track mileage and fuel, say, each time leaving home, while the "auxiliary" trip keeps a cumulative total for the season or year. Optionally, it can be reset at each refueling.

Miles to Go

Use the knob to set this value. While driving, the VMS 350 will count down the miles, and provide a continuing estimate of the *Time of Arrival* and the amount of *Fuel Required*. These estimates will be based on the speed and fuel consumption averages for the Main Trip.

By entering-in the destination distance, from a GPS or map for example, a good estimate of the arrival time and fuel required can be known. This can help plan and manage stops. The Arrival Time can also be watched while adjusting the Miles to get the best travel distance on the next leg.

Clearing the Trips

By pressing the knob while the cursor points to the Reset Main Trip or Reset Aux Trip items, either of the two trip odometers can be zeroed out. Once cleared, however, the action cannot be undone.

Trip History

When the Main Trip odometer is 'cleared,' the data are recorded in the Trip History. The unit can store up to 64 trips in its history. To view the history, select the View History item. Then, use the knob to scroll through all the trip data.

Trips of less than five miles are not recorded in the history. To clear the history, see the Configuration Screen described below.

Troubleshooting

Fault Detection

In the event of a detected fault within the house systems, a fault indication may appear. As not all coaches are using these and other specific features, your mileage may vary. Call us for any questions regarding these or other questions.

Limited Warranty

The obligation of SilverLeaf Electronics under this warranty shall be limited to repair or replacement [at our option] during the warranty period of any part which proves defective in material or workmanship under normal installation, use, and service, provided the product is returned to SilverLeaf Electronics. The warranty period shall be one year from date of purchase of the VMS 350™, or purchase of the finished coach with the VMS 350™ installed.

This warranty shall be invalid if the product is damaged as a result of defacement, misuse, abuse, neglect, accident, destruction, alteration, improper electrical voltages or currents, repair or maintenance by any party other than SilverLeaf Electronics or an authorized service facility, or any use violative of instructions furnished by us.

This one-year warranty is in lieu of all other expressed warranties, obligations, or liabilities. Any implied warranties, obligations, or liabilities, including but not limited to the implied warranties of merchantability and fitness for a particular purpose, shall be limited in duration to the one-year duration of this written limited warranty.

In no event shall SilverLeaf Electronics be liable for any special, incidental, or consequential damages for breach of this or any other warranty, expressed or implied, whatsoever.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.



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