

BASIC OPERATIONS

INTRODUCTION

Congratulations on your purchase of the AUDIT 2U9 Tank Monitor System. AUDIT (Automotive Data Information Terminal) is a registered trademark of Javelina Corporation. The AUDIT System utilizes a state of the art microprocessor which insures years of trouble free operation, extended tank sensor life and accurate tank level measurements.

Your **AUDIT 2U9** is the 15th generation AUDIT system specially designed for use in your new Foretravel Motor Home. The 2U9 incorporates all of the past improvements plus VGA graphics on a newly styled Color LCD screen. The AUTOCAL feature calibrates each holding tank for accuracy. Factory authorized service personnel are very capable of servicing the AUDIT system should the need arise.

2U9 OPERATION

ON/OFF: This switch powers the monitor, camera and computer and serves as the master power switch. In some cases this switch has a third position to control the passenger side camera.

SELECT: This switch signals the computer (CPU) to display either tank level graphics , compass and outside temperature screen or rear video.

BRIGHTNESS CONTROL: This switch controls the brightness of the three video pictures (tank level, rear video or the extended rear video screen).

LCD COLOR MONITOR: The monitor utilized in the system is a reliable, solid state, 12 volt, LCD (Liquid Crystal Display) Color Monitor. This monitor has proven capability over a wide temperature range. This monitor is compatible with the Color Camera option as well as the Black/White camera option. The screen lens is made of non-glare glass, cut by water jet to precise tolerances, to allow surface cleaning without scratching.

SWITCH PANEL: The switches that control the AUDIT system are located on an electroluminescent panel. The electroluminescence is what lights the panels for night operation. The electroluminescence is a thin film of phosphor located between the front panel graphics and the aluminum panel. Energizing this phosphor with AC voltage makes the phosphor glow thereby lighting the graphics in front of it. Care should be taken not to puncture this panel as it could permanently damage the backlighting. Any addition of switches should be performed only by factory authorized personnel to avoid damaging this panel. **DRILLING OR CUTTING INTO THE DASH PANELS WILL CAUSE PERMANENT DAMAGE TO THE LIGHTING.**

Properly cared for these panels will provide over 10,000 hours of operation (night time driving).

CARE AND CLEANING Use only a clean damp cloth to clean the screen or dash panel surface. Never use abrasive, acetone or ammonia based products in cleaning these surfaces.

Model 2U9 Operation The operation of the model 2U9 is virtually automatic. At Apower up@ the system displays the FORETRAVEL Logo screen while the computer performs 84 operational tests and

calibrations. Once complete the Computer loads the holding tank calibrations. This is observed by the multi-color letters in the "Audit 3U9" on the screen. Once complete the video screen automatically changes to the selected screen (either rear video or compass and tank level gauges). Holding tank levels are determined by external pressure probes connected to the tank drain plumbing. The tank sensor then transmits the tank level to the computer via the tank wiring harness. The computer interprets the reading and displays the appropriate data via a high resolution VGA (video graphic adapter) located within the computer itself. The model 2U9 computer has a unique auto cal feature that compensates for tank variances, voltage variances as well as wiring harness variances. This unique auto cal feature is activated by the factory installer and, once activated, never needs calibration again unless a tank or sensor is replaced.

The 2U9 displays tank levels using red to represent critical or awareness levels. For instance, if the Fresh Water is below 1/4 level the resulting level will be displayed in red. The same is true for the grey and black water tanks except the critical levels are reversed and displayed at levels over 3/4 of a tank. The L.P. gas level turns to red at 1/8 of a tank or less. The L.P. tank, when empty will still show one red bar at the bottom of the graph representing that the tank is never totally empty. The outside temperature displays in degrees Fahrenheit and has two color ranges, at 85 degrees the temperature turns from green to red.

CALIBRATION (Model 2U9)

The auto calibration feature of this computer automatically and easily compensates for variances in tank thickness, and harness resistance. This feature, once activated, stores the calibration data in non-volatile memory on board the computer. The calibration data is accessed each time the computer is turned "on". Once the calibration data is stored the auto cal feature need not be used again unless a tank sensor or tank is replaced. The auto cal feature only affects the " Fresh", "Grey" & "Black" holding tank levels. The auto cal has no effect on the Volt, LPG or compass readings.

To activate the Auto Cal feature proceed as follows:

- 1.** Empty the Fresh, Grey & Black water holding tanks.
 - 2.** Turn the Computer "on" and select the holding tank screen.
 - 3.** Locate connector pin #15 located on the 24 pin Deutsch connector on the end of the computer. Once the tanks are emptied, momentarily short Pin #15 to ground. In the center of the screen you will notice a "wait" and then a "done" message. When the word "done" appears it means the computer has stored those readings as empty readings.
 - 4.** When "done" appears, fill the tanks to their fullest desired levels. Once the tanks have been filled to the desired levels and allowed to settle (approx. 1 minute) short Pin #15 to ground. Again, notice a brief "wait" message followed by a "done" message. This means that the computer has taken the tank readings and stored them as "FULL" levels.
 - 5.** Turn "off" the computer via the front panel switch, wait 3 seconds and turn the computer "on". The "done" message is gone and the computer is calibrated.
- The computer may be calibrated as many times as necessary. Remember, once the final "done" is displayed the computer must be turned "off" and then back "on" for the reading to be loaded!

COMPASS SENSOR

The 2U9 computer utilizes a state of the art compass sensor. The sensor has its own on-board

microprocessor that continually calibrates the sensor keeping it accurately able to define magnetic north. This sensor is so sophisticated that it has the ability to calibrate to individual vehicle characteristics.

The compass sensor has been fitted to the Foretravel Coach and, in it's present configuration, is located on the top roof mounted facing forward. The sensor must be mounted with nonmagnetic hardware.

THE USE OF ANY OTHER MOUNTING HARDWARE IS NOT APPROVED