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# THE ITX9000 RECREATIONAL VEHICLE QUICK START GUIDE

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## INTRODUCTION:

The ITX9000RV uses the same hardware platform as other members of the ITX9000 family. It is furnished with an installed Windows 10 Operating System and additional software to permit users to begin work with minimum effort, straight out of the box.

Installed software includes a G-Star IV waterproof GPS receiver, CoPilot Truck Navigation (USA and Canada databases), OBD2 Vehicle, and the LibreOffice suite which provides word processing, spread sheet, presentation, draw, database management and mathematical formulae creation programs.

In addition, media player, virus and spyware protection software is installed. A summary of system specifications is shown in the table below.

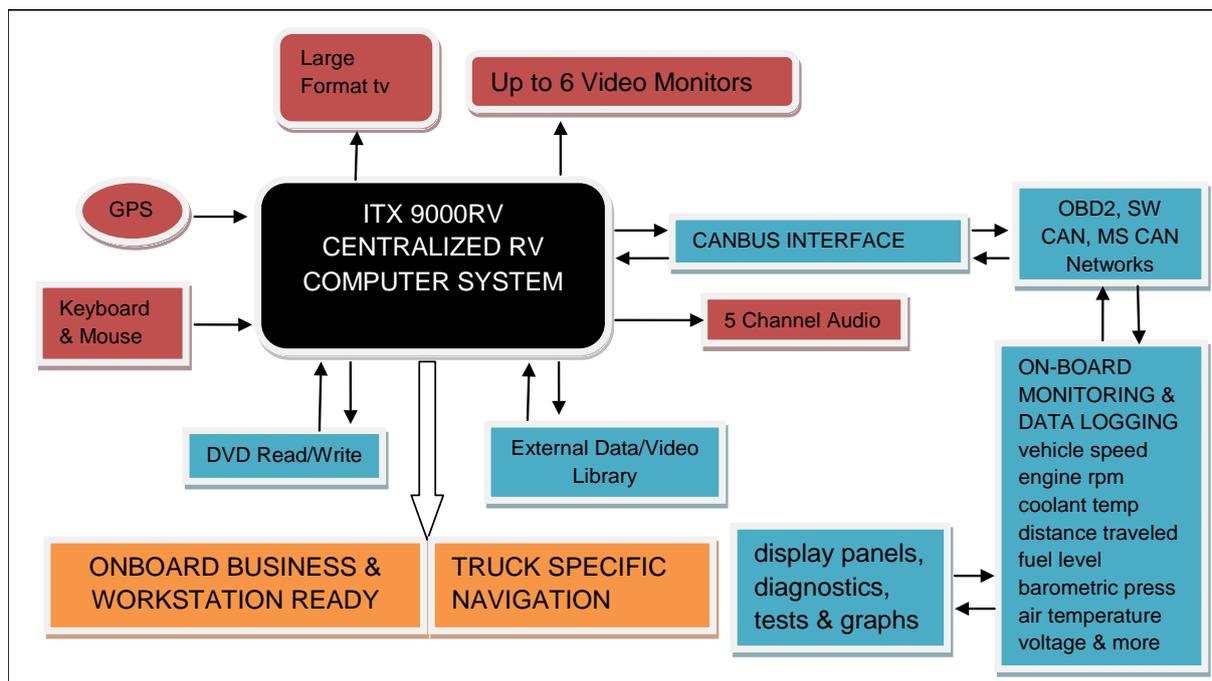
A 180W AC adapter and a heavy duty DC power cord are provided.

### ITX9000RV specifications

Dimensions	245mm (9.66in.) W x 274.5mm (10.81in.) D x 68.5mm (2.70in.) H
Weight	Approximately 4kg (8.8 pounds)
Corrosion Protection	6063 extruded and anodized aluminum case (elastomeric seals throughout) Stainless Steel rear interface panel Conformal coated electronics with added protection against salt spray
Installed Software	Windows 10 Professional OS, G-Star IV drivers, CoPilot Truck, Libre Office, VLC Media Player, OBD2 vehicle, Avast Antivirus, Super Antispyware
Key Features	U.S./Canada Professional Navigation, CANBUS display and control, Remote Tablet Control, High resolution Video, 5.1 channel audio, Asus signature series motherboard, Intel I7-6700 series CPU, quiet no fan thermal system, fully operational
Integrated Functions	Wi-Fi 802.11a/b/g/n/ac, Bluetooth, smartphone/tablet support for ios7 and Android 4.0 systems, onboard overload and thermal protection systems for I/O and CPU
Back Panel I/O ports	1 x PS2 mouse/keyboard combo, 1 x HDMI, 1 x DVI-I, 1 x D-sub, 1 x Display Port, 1 x Optical S/PDIF Out, 1 x LAN (RJ-45), 6 x USB 3.0, 3 x Audio Jacks
Front Panel	2 x USB 3.0, Power Switch, HDD LED, Power On LED
Power Supply	Custom DC to DC digitally controlled PSU, 300W, 6-30VDC
RAM	8GB DDR3 installed, additional 8GB optional
SSD	250GB Samsung 850 series installed
External Optical Drive	24x read, 8x write. Provided.
VESA Mount	Four VESA Screws Provided. Mounting Plate Optional.
AC adapter	100-240VAC in/19vdc out, 180W provided.
Shock Isolation	Provided for PSU, motherboard/CPU, SSD

## OVERVIEW:

This Quick Start Guide provides an overview of ITX9000RV system components and instructions for connecting those components. Additionally, it provides guidance for initial startup and verification of GPS signal acquisition as well as verification of OBD2 data streams as received from your vehicle's CANBUS monitor and control network. Verify your vehicle is OBD2 compliant and has a 24 pin OBD2 connector within 2 feet of the driver position. Check your vehicle owners manual if in doubt. Vehicles less than 10 years old should be fully compliant. Detailed safety, installation and operational information expands on instructions in this guide and is included in the ITX 9000RV User Manual and associated guides packaged with the ITX9000RV.





## ☀ **UNPACK, LOCATE AND CONNECT**

### **UNPACK:**

Carefully unpack all components shipped with the ITX9000RV system. Many of these components have been tested and safely secured in the ITX9000RV Custom Pelican Case. Other components such as the wireless keyboard/mouse, User Manual, DC power cable and OBD2 CANBUS interface are packaged separately.

### **LOCATE:**

The ITX9000RV is a portable system that will centralize most vehicle navigation and instrument functions while also providing powerful and portable computing capability.

The two primary conditions for locating the ITX9000RV are to 1) keep the unit dry and 2) provide the unit with free air circulation. When the vehicle is moving, the ITX9000RV must be secured at all times. The included VESA mounting screws can be used in a user provided installation or heavy duty nylon straps can be installed to keep the unit secure while underway. The optional MP1 Mounting Plate may also be appropriate to safely secure the unit while the vehicle is moving. Additionally, the MP1 provides for quick removal for transport of the ITX9000RV in its Pelican case.

The ITX9000RV is often located at a desk, table, dresser or cabinet within the RV and can be mounted in any orientation. Popular locations are adjacent to the dining table or driver position. Multiple mounting locations can be accommodated provided minimum wiring requirements are met. Provide sufficient clearance for wire connections at the rear panel and locate the following cables at the chosen use point(s).

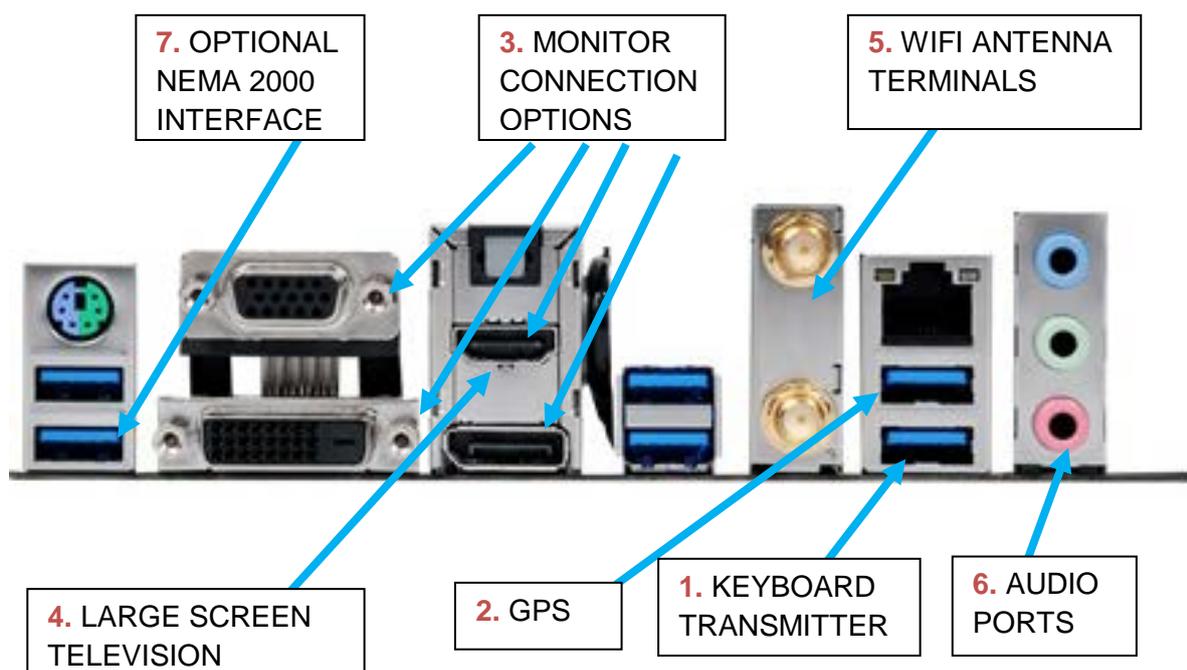
- DC Power Cable\*
- Monitor Cable (VGA, HDMI, DVI-I, or Display Port)\*
- GPS Cable\*
- TV Cable (HDMI preferred)
- LAN Cable
- WiFi Antenna Cable
- Audio Cables

\* indicates a cable connection necessary for operation

**IMPORTANT:** The GPS Receiver must "see" the satellites to acquire signals. Signals pass through glass, wood and fiberglass and are blocked by metals. Please keep this in mind when locating the unit. A high quality "active repeater" USB extension cable is provided with the unit to allow extension of the GPS receiver by 10M. The GPS receiver is waterproof and can be mounted external to the RV.

Securely locate and mount your Computer Monitor. If your AC power adapter for this monitor has a 19VDC output, you may prefer the optional PS1 DC to DC converter which uses 12VDC ship's power for monitor operation, thus eliminating safety issues associated with energized onboard AC supplies while underway.

## CONNECT:



1. Connect the keyboard transmitter to the indicated USB port.
2. Connect the GPS USB cable to the USB port directly above the USB port used for the keyboard transmitter. This port is designated as COM2 in software and is the only port to which the GPS should be attached.
3. The monitor (user supplied) can be attached to the VGA port, Display Port, HDMI port or DVI-I port. If the monitor accepts a Display Port



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connection, this would be preferred over all other alternatives. The Display Port can also be used with a Display Port to HDMI adapter which would then provide two HDMI port connections. If also connecting a large screen TV, leave the HDMI port free for this TV connection.

**4.** Connect a large screen TV to the HDMI port using a suitable HDMI cable. A high quality cable is preferred to assure good video and audio fidelity, particularly in high resolution installations.

**5.** Connect the WiFi antenna to the corresponding WiFi terminals. Connection to either terminal with either wire is acceptable.

**6.** Connect audio to the appropriate audio terminals. Do not connect speakers with power requirements greater than 2W unless a separate amplifier is used. Computer speakers with outputs greater than 2 watts typically have amplifiers integrated into their design. Use the Lime colored port for either headphones or a 2.1 channel stereo system. Refer to the User Manual for additional channel options.

**7.** The Vehicle DC Power Cable must be connected to a fused circuit of at least 15 amps. Some auxiliary power points within vehicles meet this requirement, however it is preferred that an independent power source connected directly to the vehicles "fuse block" is used. Most vehicles have additional fuse block positions available. **VERIFY POLARITY IS CORRECT** before connecting the cable to the ITX9000RV.



## **STARTUP**

### **AT HOME:**

- **Verify all necessary connections** have been made per the CONNECT instructions in the preceding section.
- **Insert the AC adapter** cable DC male plug into the corresponding female DC input receptacle on the rear panel of the ITX9000RV. Insert the adapter AC input cable into your local power outlet. The adapter accepts 50/60 Hz AC power of 100V to 240V. Power should now be available to the ITX9000RV.
- **Press the Power Button** on the front panel of the ITX9000RV. The unit will sequence through system integrity checks and start Windows 10 Professional. Use the Elios supplied temporary password included with your ITX9000RV documentation. Press Enter. The Start Page should now be displayed.
- **Verify satellite acquisition** as follows:
  1. Double click on the "GPSInfo" icon
  2. Select "Prolific USB-to-Serial Com Port (Com2)"
  3. Set baud rate to 4800
  4. Click "start GPS". A continuous data stream verifies receipt of GPS position data. Re-position the GPS receiver as required to improve signal strength.
- **Verify Navigation Program operation** by double clicking on the "CoPilot Truck" icon.
  - a. When launching CoPilot for the first time. The Main Chart Window will display.
  - b. Click on the lower left icon (the one with 6 yellow rectangular dots) to access the Main Menu. Click the large rectangular Main Menu icon to access navigation and route planning choices.
- Go to the ITX9000RV Windows 10 start page. Note installed programs included with your new unit - antivirus software, spam filtering, word processing, spread sheets, video/audio processing and more.



## IN-VEHICLE:

- **Install the OBD2 Interface.** With the vehicle turned "off", locate the 24 pin female OBD2 Network interface receptacle and remove any connector cover provided (it is located within the vehicle and within 2 feet of the driver position). Consult your vehicle user manual if you have difficulty in finding this connector. Insert the OBD2 interface into this receptacle. The OBD2 Interface is now permanently installed.
- **Verify all necessary connections** have been made per the CONNECT instructions in the preceding section.
- Verify 12V - 24V vehicle power is available to the DC cable connector and that the polarity is correct.
- **Press the Power Button** on the front panel of the ITX9000RV. The unit will sequence through system integrity checks and start Windows 10 Professional. Use the Elios supplied temporary password included with your ITX9000RV documentation. Press Enter. The Start Page should now be displayed.
- **Verify satellite acquisition** as follows:
  1. Double click on the "GPSInfo" icon
  2. Select "Prolific USB-to-Serial Com Port (Com2)"
  3. Set baud rate to 4800
  4. Click "start GPS". A continuous data stream verifies receipt of GPS position data. Re-position the GPS receiver as required to improve signal strength.
- **Verify Navigation Program operation** by double clicking on the "CoPilot Truck" icon.
  - a. When launching CoPilot for the first time. The Main Chart Window will display.
  - b. Click on the lower left icon (the one with 6 yellow rectangular dots) to access the Main Menu. Click the large rectangular Main Menu icon to access navigation and route planning choices.
- Go to the ITX9000RV Windows 10 start page. Note installed programs included with your new unit - antivirus software, spam filtering, word processing, spread sheets, video/audio processing and more.



- Verify onboard operation of peripheral devices including large format television, music systems and ITX9000RV network operation
  
- Link the OBD2 Interface with the ITX9000RV system as follows.
  - Verify Bluetooth is enabled on the ITX9000RV.
  - Verify the 'power led' on the OBD2 Interface is lit solid green.
  - Turn the ignition key to the "on" position.
  - Press the "connect" button on the OBD2 Interface. The 'BT' light will blink quickly. You have 2 minutes to pair the OBD2 Interface with the ITX9000RV.
  - Open the Windows Control Panel and go to Devices and Printers. Select "add a bluetooth device". Windows will automatically find the OBD2 Interface device and will display it. Select the device and click 'next'. The pairing code will be displayed. Click 'yes' then next. Pairing is now complete.
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- **Verify OBD2 Interface** operation by clicking on the OBD2 icon. Click the 'auto detect' button near the top of the screen. The software will auto-configure COM port selection and Baud Rate. A new dialog box will appear, click 'connect'. Software will cycle through all OBD2 protocols and will find those used by your vehicle. Modern vehicles often use multiple on-board computers (ECU's). In the dialog box that appears we recommend you select the ECU supporting the largest number of devices. Click 'continue' then choose a task on the left side of the screen. Each selection has multiple tabs to access specific information or actions.



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## **OPERATE**

Many fully operational Programs have been integrated into the ITX9000RV to enhance your onboard capabilities and experience. The User Manual as well as the many provided specialty manuals offer detailed information describing how to best use these programs to meet your travelling needs.

We appreciate your decision to purchase the ITX9000RV and welcome your feedback. We are committed to continuously improving our products.

The Elios Technologies Project Team

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