

# Operator's Manual MODEL 2520-X

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## Quick Reference Series 2520 02/01/05

## Oil Can:

If an oil can is displayed on any screen or "Engine Maintenance" is blinking on the CHECK LIST a maintenance item needs attention. Refer to information on "MAINTENANCE" screen in this manual.

## Maintenance/Setup/Information screens:

To get access to these screens press up and down keys simultaneously. (Ref this manual)

## Maintenance Data:

Miles or hours have been preset at the factory to satisfy engine, transmission and generator break in periods. Check MAINTENANCE SETUP screen to verify accurate breakin period.

After break in period reset mile and hour intervals to an appropriate setting to match your preferred cycle.

If miles and/or hours are being set in mid cycle, set interval to accommodate remainder of cycle. After maintenance cycle, change mile and/or hour intervals to full cycle period.

## **MPG** Average:

To activate MPG Average on the COACH screen refer to the COACH MPG ON/OFF screen under SETUP MENU. Reference Maintenance, Setup and Adjustment Screens section in manual.

### Operator's Manual Series 2520 02/01/05

## Overview

TripTek is a trip and coach management computer designed for motorhomes. By receiving data from multiple sources, i.e. electronic engine computer, compass and temperature sensors (optional), tire pressure & temperature system (optional), and other sources, the system collects, analyzes, and saves data in memory and then displays information on the rear vision monitor.

## Description

TripTek is comprised of multiple parts: a keypad, computer (behind dash), compass and temperature sensors (optional), tire pressure sensor/transmitters and receiver, and utilization of the rear vision monitor for display.

## Display

When the ignition is turned on, a pre-trip CHECK LIST is displayed to guide the operator through a list of items to verify readiness of coach for travel.

To make efficient use of the data collected, and to best serve an actual vehicle trip, the system offers the operator four separate travel screens: TODAY, LEG, TRIP, and COACH. Time, Day and Date are also included on these screens.

The TODAY screen is designed to give daily information. It provides miles to scheduled destination, time to destination, miles traveled, time traveled, average MPG and average MPH. As an option, it will also give you both inside and outside coach temperature and compass heading.

The LEG screen is designed to give information from fill to fill or for a trip. It provides average MPH, time traveled, miles traveled, gallons used (by engine), average MPG, road speed, and cruise control status and compass heading.

The TRIP screen is designed for long term data tracking for a complete trip or longer. It provides average MPH, hours traveled, miles traveled, gallons used (by engine), average MPG and current MPG and compass heading.

The COACH screen is designed to give you both coach and engine/transmission performance and operational data. It provides gears select & monitor, turbo boost, engine temperature, transmission temperature, oil pressure, average MPG, oil temperature and compass heading.

The TIRE STATUS screen (optional) is designed to give you tire pressure, temperature, pressure deviation and description of alert when displayed.

Note: If referenced information is not shown on one of these screens, that information is not offered or currently being received from engine or transmission.

On a second level of screens there will be CLOCK TIME ZONE, SET COMPASS STATE, MAINTENANCE, SETUP MENU: (CALIBRATE COMPASS, MAINTENANCE SETUP, SETUP CLOCK, COACH MPG ON/OFF, & VERSION INFORMATION), CONFIGURE TIRE (optional), and CUSTOMER SERVICE.

The CLOCK TIME ZONE screen is used to change time zones across the country.

The SET COMPASS STATE screen is used to maintain compass accuracy by state. To achieve maximum accuracy, it is recommended to change the zone setting when traveling from state to state.

The MAINTENANCE screen displays when to change engine oil, engine fuel filter, transmission oil, generator oil and generator fuel filter. If Oil Can is displayed on travel screens a maintenance item needs attention. Line item will be blinking.

The COMPASS CALIBRATION screen is for calibration of the compass after its initial installation or anytime the compass sensor is replaced or relocated.

The MAINTENANCE SETUP screen is to set the intervals (miles for engine and hours for generator) for maintenance.

The SET CLOCK screen is to set all parameters of the clock, i.e. time zone, daylight savings, month, day, year, time, am/pm and format (small, large or off).

The COACH MPG ON/OFF screen is to give the operator a way of turning the display of MPG Average (COACH screen) on or off.

The CONFIGURE TIRE screen is to take you to a set of screens to set parameters, configure vehicles and check alert log.

The CUSTOMER SERVICE screen is to give the operator easy access to the phone numbers and web page of the coach manufacturer.

## **Keypad Keys**

(Maintain rear vision monitor in "on" position to display trip data)

Use the up  $\Delta$  and down  $\nabla$  keys to step through each line item of the CHECK LIST.

Use the **VIEW** key to move out of the CHECK LIST screen and go to the travel screens.

The <u>VIEW</u> key cycles through the four travel screens: TODAY, LEG, TRIP, and COACH. By pressing this key, with the monitor on, the computer will sequence through the four data screens, tire status screen (optional), and one blank screen. The system is also designed to sequence forward or backward, depending on which side of the key is pressed.

The **SCREEN** key will change data/picture contrast by changing the text background.

Successive presses to the <u>SCREEN</u> keys will give the following options:

Data on picture: The ability to view a data screen and still see the rear vision image.

**Data only:** View data screen only with either a dark or light background for greater contrast.

The **RESET** key will zero all or part of the data on the currently viewed screen.

The up  $\Delta$  and down  $\nabla$  keys set miles to be traveled today. Holding down a key will scroll through numbers. This is operational only on the TODAY screen.

To get the second level SCREEN SELECTION screen, push the up  $\Delta$  and down  $\nabla$  keys simultaneously.

### **SECOND LEVEL**

Use the up  $\Delta$  or down  $\nabla$  key to change selection.

Use <u>VIEW</u> key to select screen.

Use **VIEW** key to return to SCREEN SELECTION screen.

## **Clock Battery**

The TripTek computer utilizes a replaceable battery # CR1632 to retain its clocks memory when the system is off.

**Battery replacement:** 

- 1. Disconnect TripTek computer from coach. Most connectors utilize a latch to retain their position. Compress latch arm to remove connectors.
- 2. With the removal of four screws from the two long sides of the computer lift off the back cover and expose the inside of the system.
- 3. Locate battery on back surface of computer
- 4. Slide battery out from under metal spring clip.
- 5. Replace with positive side (+) of battery facing up.
- 6. Reverse steps 1 through 4 to reassemble system.

### Operating the TripTek Computer Model 2520X 2/01/05



Turn the ignition switch ON.

Turn the rear vision monitor ON. Display rear vision picture.

Press the <u>SCREEN</u> key on the keypad to change contrast of displayed data to the picture.

Note: If vehicle is put into reverse, the rear vision system will override the computer and clear TripTek data from the screen until transmission is taken out of reverse.



With the above steps completed, the "CHECK LIST" screen will be displayed on the backup monitor.

There will be multiple screens displaying checklist items.

"CHECK LIST" will only come up when ignition is first turned on.



Press the <u>VIEW</u> key on the keypad. The "TODAY" screen will display on the backup monitor.

Press **VIEW** keys to scroll through travel screens.

## **Check List Screen**

The CHECK LIST screen is designed to give you a list of items to verify readiness of coach for travel.



This screen will give you a list of items to check off to insure readiness of coach for travel.

If a line item is blinking (e.g., "Engine Maint."), it would imply that service or operator attention is required.

If **b** is displayed to the right of a line pressing <u>VIEW</u>, while on that line, will move you to the indicated screen.



Using the up  $\underline{\Delta}$  and down  $\underline{\nabla}$  keys will let you step down each line item and check them off as you verify completion of task.

If a line item is blinking, press **VIEW** to move to the appropriate screen (i.e. "MAINTENANCE") to evaluate the problem.

Press **VIEW** key again to return to "CHECK LIST".

Press VIEW key to move out of "CHECK LIST" and into "TODAY" screen. Will function only on line items which don't have the symbol.

The "CHECK LIST" is only visible when ignition is first turned on.

## **Today Screen**

The TODAY screen is designed to give you daily information.

	-
TODAY NW	
Out 85'F In 72'F	
Mi To Go 92.8 Ti To Go 1:25	15
Mi Travid 207.2	CONTINU
MPG Avrge 7.1	-
MPH Avrge 63.9	

NW:	Compass Heading (optional)
Oil Can:	If Oil Can is displayed a maintenance item needs attention (Ref. "MAINTENANCE" screen).
Time/Date:	Time, Day and Date. Line can be configured to large text (default as pictured), small or off.
Out/In Temp:	Outside and inside coach temperature (optional).
Miles To Go:	Remainder of user entered miles to scheduled destination.
Time To Go:	Approximate time to scheduled destination, utilizing "Miles To Go" and current speed.
Miles Traveled:	Miles traveled since "TODAY" screen reset.
Time Traveled:	Time traveled since "TODAY" screen reset.
MPG Average:	Average miles per gallon since "TODAY" screen reset.
MPH Average:	Average miles per hour since "TODAY" screen reset.

Press **<u>RESET</u>** and follow screen instructions to zero out "TODAY" screen.

Using the up  $\Delta$  and down  $\nabla$  keys, set the miles you will travel today. The longer the key is held down, the faster the number will scroll. Miles can be changed throughout the day.

Press VIEW to return to "TODAY" screen.

Note: As "Miles Travld" changes, "Miles To Go" and "Time To Go" will also change accordingly.

Press SCREEN to change data/picture contrast.

Press <u>VIEW</u> to move to the "LEG" screen.

Note: To move forward or backward through the screens, press the side of the **<u>VIEW</u>** key that displays chosen direction.

VIEW SCREEN RESET **TripTek** 

## Leg Screen

The LEG screen is designed to give you information from fill to fill.

NW:



Oil Can:	If Oil Can is displayed a maintenance item needs attention (Ref. "MAINTENANCE" screen)
MPH Average:	Average miles per hour since "LEG" screen reset.
Time Traveled:	Time traveled since "LEG" screen reset.
Miles Traveled:	Miles traveled since "LEG" screen reset.
Gallons Used:	Gallons of fuel utilized by engine from the time of "LEG" screen reset. Data from engine computer.
MPG Average:	Average miles per gallon since "LEG" screen reset.
Road Speed:	Current coach speed.
Cruise OFF:	Status of cruise control and its set speed. Displays preset speed while cruise is off and actual speed while cruise is on.

**Compass heading (optional)** 



Press <u>**RESET</u>** and follow screen instructions to zero out "LEG" screen.</u>

Press <u>SCREEN</u> to change data/picture contrast.

Press <u>VIEW</u> to move to the "TRIP" screen.

# **Trip Screen**

The TRIP screen is designed for long term data tracking for a complete trip or longer.



NW:	Compass heading (optional)
Oil Can:	If Oil Can is displayed a maintenance item needs attention (Ref. "MAINTENANCE" screen).
MPH Average:	Average miles per hour since "TRIP" screen reset.
Hrs Traveled:	Hours traveled since "TRIP" screen reset.
Miles Traveled:	Miles traveled from time of "TRIP" screen reset.
Gallons Used:	Gallons of fuel utilized by engine from time of "TRIP" screen reset. Data from engine computer.
MPG Average:	Average miles per gallon since "TRIP" screen reset.
MPG Current:	Instantaneous miles per gallon.



Press **RESET** and follow screen instructions to zero out "TRIP" screen. Press **SCREEN** to change data/picture contrast. Press <u>VIEW</u> to move to the "COACH" screen.

## **Coach Screen**

The COACH screen is for coach and engine performance.

NW:

		н	NW	
1 1	Z1 Wed	Jun	9	-
13	m Gea	r an L	3	
Tur	bo Psi	19.4		9010
Eng	Temp	200°F		1
Tra	n Temp	168°F		CONT
Oil	Press	34		
MPG	Avg	7.45		-
Dil	Temp	220'F		

NW:	Compass heading (optional)
Oil Can:	If Oil Can is displayed a maintenance item needs attention (Ref. "MAINTENANCE" screen)
Gear:	Transmission gears selected and attained. N=Neutral, C=Converter, L=Converter Lock, R=Reverse
Turbo PSI:	Turbocharger boost pressure.
Eng Temp:	Engine coolant temperature.
Tran Temp:	Transmission oil temperature.
Oil Pressure:	Engine Oil Pressure.
MPG Average:	Average miles per gallon for life of coach.
Oil Temp:	Engine oil temperature.

Note: If referenced information is not shown on your "COACH" screen, that information is not offered from engine or transmission.

Note: MPG Average display can be turned ON or OFF in the next level of screens, ref. Maintenance, Setup and Adjustment Screens.



Press **SCREEN** to change data/picture contrast.

Press <u>VIEW</u> to move to the "BLANK" screen or, optional "TIRE PRESSURE" screen. (Ref. tire pressure manual)

## **Tire Status (optional)**

The TIRE STATUS screen is designed to give you both tire pressure and tire temperature information.



Oil Can:	If Oil Can is displayed a maintenance item needs attention (Ref. "MAINTENANCE" screen)
Filled Tire:	Tire that has data displayed.
Press:	Actual tire pressure of filled tire.
Temp:	Air temperature within filled tire.
Dev:	Deviation is the difference between actual pressure and required pressure.
High Temperature:	Tire Status, e.g. High temperature alert – Air temperature within tire exceeds programmed level.



Using the up  $\underline{\Delta}$  and down  $\underline{\nabla}$  keys will let you move to the next tire to display its tire data.

Press <u>VIEW</u> to move to the "BLANK" screen.

Note: During any tire alert this screen would come on with the affected tire selected and display its problem. Also a dash light and buzzer would sound.

## Maintenance, Setup and Adjustment Screens



Press the up $\Delta$  and down  $\nabla$  keys simultaneously to get the second level screens ("SCREEN SELECTION").

Or, get to these screens by way of the "CHECK LIST"

Press **VIEW** key to return to the previous screen.

Using the up  $\Delta$  and down  $\nabla$  keys will let you step through each line item to choose the appropriate screen.

Press <u>VIEW</u> key to display screen.

Press **VIEW** key to return to the "SCREEN SELECTION" screen.

SCRE	ENSELECTION
UP/DOWN to	Change VIEW ) to Select
+	Travel Screens Clock Time Zone Set Compass State Maintenance Setup Menu Configure Tire Customer Service

<b>Clock Time Zone:</b>	Change time zone of clock.
Set Compass State:	Set compass zone by state.
Maintenance:	Maintenance screen.
Setup Menu:	All setup screens.
Configure Tire:	Configure tire system (optional).
<b>Customer Service:</b>	Coach customer service screen (optional).

## **Clock Time Zone**

The CLOCK TIME ZONE screen is used to change time zones across the country.



Mountain Time Zone: Time zone within the United States/Canada.



Press the up  $\Delta$  or down  $\nabla$  key to select proper time zone. Press **VIEW** key to select and return to "SCREEN SELECTION" screen.

## Set Compass State Screen

The SET COMPASS STATE screen is to maintain compass accuracy by state.





Using the up  $\Delta$  or down  $\nabla$  key will let you scroll through the list of states to pick the state of your current location.

Pressing <u>VIEW</u> will change the zone to the chosen state and return to "SCREEN SELECTION" screen.

Press **VIEW** key to cancel and return to "SCREEN SELECTION" screen.

## **Maintenance Screen**

The MAINTENANCE screen displays when to change oil and filters.



Engine Oil:	Miles since last engine oil change.
Fuel Fltr:	Miles since last fuel filter change.
Trans Oil:	Miles since last transmission oil change.
Gen Oil:	Hours since last generator oil change.
Fuel Fltr:	Hours since last generator fuel filter change.
Note: To change line item of	luration refer to "MAINT. SETUP" screen.

Note: If Oil Can is displayed on top level screens the maintenance line item that is blinking needs attention.

Press the up  $\underline{\Delta}$  or down  $\underline{\nabla}$  key to select the line item desired.



Press <u>RESET</u> and follow screen instructions to zero out line item after oil or filter change.

Press **VIEW** key to return to "SCREEN SELECTION" screen.

Press the up  $\underline{\Delta}$  or down  $\underline{\nabla}$  key to select the "SETUP MENU" screen.

Press <u>VIEW</u> key to display screen.

## **Setup Menu Screen**

The SETUP MENU screen will display all setup screens.



Calibrate Compass:	Compass calibration procedure.
Maintenance Setup:	Setup maintenance parameters.
Setup Clock:	Clock setup screen.
Coach MPG ON/OFF:	Turn on or off MPG average on coach screen.
Version Information:	Product version information.



Press the up  $\Delta$  or down  $\nabla$  key to step through each line item to choose the appropriate screen.

Press VIEW key to display screen.

Press **VIEW** key to return to "SCREEN SELECTION" screen.

## **Calibrate Compass**

The compass must be calibrated after its initial installation or at anytime it is replaced or relocated. Compass calibration can be accomplished at two levels of accuracy. Standard Calibration – more than adequate for normal use. This is where the coach is driven in a full circle. 4 Point Calibration – where greater accuracy is sought or when the sensor has been put in an environment that affects compass accuracy. The procedure requires the coach to be pointed in each of the four true compass headings, i.e. North, East, South and West..



Press <u>VIEW</u> key to begin compass calibration.

Press **VIEW** key to skip calibration and return to the "TODAY" screens.



Drive the coach in a full circle.

Press <u>VIEW</u> key after successful calibration and proceed to "COMPASS ADJ." Ref. below.

Press <u>RESET</u> key to proceed with 4-point calibration if desired.





Follow screen instructions and point coach true North and then press <u>VIEW</u> Screen will then instruct you to point coach true East, press <u>VIEW</u> again. Continue process through South and West pressing VIEW after each step.

Using the up  $\Delta$  or down  $\nabla$  key will let you scroll through the list of states to pick the state of your current location.

Pressing <u>VIEW</u> will change the zone to the chosen state and return you to the "SETUP MENU" screens. Calibration is complete.



Press **VIEW** key to cancel and return to "SETUP MENU" screen.

## **Maintenance Setup Screen**

The MAINTENANCE SETUP screen is to preset the service interval of miles or hours.



Engine Oil:Selected maintenance item to set. Ref. Engine Oil,<br/>Eng. Fuel Filter, Transmission Oil, Generator Oil<br/>and Generator Fuel Filter12000 mi:Adjustable miles or hours for maintenance<br/>replacement interval.



Press <u>VIEW</u> key to change maintenance line item.

Press the up  $\underline{\Delta}$  or down  $\underline{\nabla}$  key to set desired miles (eng or trans) or hours (genset) for maintenance replacement interval.

Press <u>RESET</u> key to save and return to "SETUP MENU" screen.

## **Setup Clock Screen**

The SET CLOCK screen is used to set all parameters of the clock



Mountain Time zone:	Time zone within the United States/Canada.
Auto Daylight Savings:	Able to DISABLE or ENABLE.
Sat Jan 31, 2004:	Month, Day and Year
8:58.22 PM mst:	Time, am/pm and Time zone designation.
Clock Display Format:	Clock data line and text size. Large: 8:58 Sat. Jan 31 Small: 8:58 PM mst Sat. Jan 31, 2004 Off: No data



Press the up  $\Delta$  or down  $\nabla$  key to change value of the item blinking. Press  $\checkmark$  <u>VIEW</u> key to go back to the previous settable item. Press <u>VIEW</u> key to go forward to next settable item. Press <u>RESET</u> key to return to "SETUP MENU" screen.

# **Coach MPG ON/OFF Screen**

The COACH MPG ON/OFF screen is to give operator a way of turning MPG Average on or off. This is lifetime data that is on the COACH screen.



**ENABLED:** 

The ability to disable or enable MPG Average display on the COACH screen.



Press the up  $\Delta$  or down  $\nabla$  key to disable or enable MPG Average. Press  $\P$  <u>VIEW</u> key to return to "SETUP MENU" screen. Press  $\P$  <u>VIEW</u> key to return to "SCREEN SELECTION" screen.

# **Configure Tire Menu (optional)**

# The CONFIGURE TIRE MENU screen is used to set all parameters of the tire pressure system. Refer to operator's manual for monitoring tire pressure and temperature.



VIEW SCREEN RESET TripTek\* Setup Pres./Temp Alert: Setup parameters for all tire alerts.

Add/Edit Veh. Config:	Configure all vehicles in system.
Check Alert Log:	View system alert log.
Go to Tire Screen:	Move to "TIRE STATUS" screen.
<b>Reset Swap Region:</b>	Reset swap region in "TIRE SENSORS" screen.
Exit to Travel Screens:	Return to travel screens.

Using the up  $\Delta$  and down  $\nabla$  keys will let you step through each line item to choose the appropriate screen.

Press <u>VIEW</u> key to display screen.

Press **VIEW** key to return to "SCREEN SELECTION" screen.

## **Customer Service Screen**

The CUSTOMER SERVICE screen is to give operator easy access to phone numbers and web page of the coach manufacturer.



1-800-:

Phone number of customer service department for coach manufacturer.

www.:

Web page of coach manufacturer.



Press **VIEW** key to return to "SCREEN SELECTION" screen.

### **TripTek® Product Warranty**

Coretronics, Inc. (the Company) warrants the Triptek® computer to be free of defects in material and workmanship under normal use and service maintenance for a period of 12 months. In the event the Computer shall prove to be defective in material or workmanship during said 12-month warranty period, Coretronics, Inc. will, at its option, repair or replace the Computer, at no charge to Customer except as set forth below. All replaced parts and equipment shall become the property of Coretronics.

This limited warranty does not apply to any damage to the Computer resulting from accident, physical or electrical misuse or abuse, improper installation, alteration, any use contrary to its intended function, unauthorized service (i.e. service by anyone other than the Company or its authorized service personnel), fire, flood, lighting, or other acts of God.

This warranty limits the Company's liability to the repair or replacement of the product. The Company shall not be responsible for removal and/or reinstallation charges, loss or damage in transit and shipping and mailing costs to the warranty service location.

Telephone 208-938-6331 to obtain a Return Material Authorization (RMA) number. Send the defective unit and RMA number to: Coretronics, Inc., 1251 E. Iron Eagle Drive, Suite 150, Eagle, ID 83616.

The Company reserves the right to make changes or improvements in its products without incurring any obligation to similarly alter products previously purchased.

## TripTek Installation Guide Series 2520 02/01/05

## Overview

TripTek is a trip computer designed for motorhomes that have an electronic diesel engine. Receiving data from the electronic engine computer and other sources, the system collects, analyzes, and saves vehicle data in memory; it then displays trip, temperature, directional and tire information on the rear vision monitor.

## Components

Before starting, verify that you have all items listed below. If you are missing any of the following, check with the dealer who sold you the unit.

1.	TripTek computer
2.	Keypad assembly & hardware (nuts)
3.	Wire harness
4.	Video cable
5.	Wiring hardware
6.	Operator's manual
7.	Temperature sensors and compass w/ harness (Optional)
8.	Tire pressure sensing system (Optional)

### **Starting Instructions**

### Locate J1708 Data Link

Depending on the coach manufacturer, the J1708 public data link from the engine ECM may or may not be run to the dash area. If you are unsure about the data line identity, contact the coach manufacturer for help. The data lines should be a twisted pair of wires. For further information, see page 2, Connect J1708 DataLink.

# Keypad

### **Choosing a Location**

The keypad should be accessible and convenient for operation without the need for visual contact. This will assist the operator in utilizing the system with minimal impact on driver safety. It is also important that the surface is flat because the keypad can be damaged if distorted. We suggest locating the keypad on the left console, near the transmission shift panel, if possible.

### **Drilling the holes**

After you have chosen the location, check behind that area of the console for any obstructions such as brackets or cables. If none are found, mark the location of the holes on the console surface, using the template in Appendix C. Drill all holes, using a 9/64" drill for the four studs and a 9/32" drill for the slotted hole.

Route the keypad cable through the slotted hole and to the location chosen for the computer, then insert the four studs of the keypad into the drilled holes. If there is any interference that could possibly distort or damage the keypad, remove it and make any changes required to remedy the problem.

From the back of the console, place the nuts on the threaded studs and tighten. The keypad rubber cover that is between the keypad and console should not be compressed or show any distortion. DO NOT OVER TIGHTEN!

# **Temperature Sensors and Compass (Optional)**

**Refer to Compass and Temperature Installation Manual** 

## **Tire Monitor System (Optional)**

Refer to Tire Monitor System Installation and Troubleshooting manual

## Wire Harness (Standard) - Computer

Refer to wiring detail in Appendix A (Dwg. C-02-99002). The wire harness is supplied with the TripTek computer.

### **Connect the Ground**

Locate the BLACK wire in the wire harness and connect it to the same grounding point that is used for the rear vision system. THIS IS VERY IMPORTANT! As an alternative, you can use a Scotch-splice and tap into the ground for the rear monitor in the harness going to the monitor.

### **Connect to Reverse**

Install or verify a relay is in the Reverse line circuit - Ref. Dwg. C-02-99002

Locate the GREEN wire in the wire harness and connect this wire to the reverse signal wire to the rear vision system, monitor side of relay (purple/white wire on Panasonic system).

#### **Connect J1708 DataLink**

Finding the link.

The J1708 Public Data Link may or may not have its own connecter under the dash. This is NOT the six or nine pin round engine diagnostics connector. If this connector cannot be found, locate the six or nine pin round engine diagnostics connector. Reach around behind it and locate the twisted pair of wires that go into it. Track those wires back into the dash. Use Scotch-Loc splices or similar to splice the RED (+) and WHITE (-) twisted pair from the TripTek into it. Make sure you have the polarity correct. Checking output voltage of data link from engine: Positive Data Link 4-5 VDc, Negative Data Link 0-1 VDc.

### **Connect to Generator Hour Meter Signal**

Locate the YELLOW wire in the harness and connect it to the generator hour meter positive line. You may also find a wire that is switched hot with 12vdc while generator is running, behind the generator start/stop switch.

### **Connect to Chassis Power**

Locate the WHITE/RED wire and run it to a constant 12vdc power source. It may require additional wire. This wire must have constant 12vdc even if the ignition is off.

Locate the WHITE wire in the harness and run it to a source that has switched power that is on when the ignition is switched to *ACC*.

## **Install Computer**

Locate a space under the dash to install the computer. Fasten to a flat surface utilizing flanges on unit.

## **Ground Computer Enclosure**

Connect BLACK wire attached to computer enclosure to chassis ground. For Panasonic system, connect to camera converter box. Ref. Dwg. C-02-99002

# **Connect Keypad**

Route cable from keypad location to computer and plug into computer enclosure marked KEYPAD.

## **Interconnect Backup Camera**

Disconnect backup camera cable at the monitor. Connect backup camera cable to one end of supplied video harness and the other end to rear vision monitor. Then connect colored RCA jacks from video harness to TripTek computer enclosure. If there are two camera ports on the rear vision monitor make sure you utilize the same connection as before.

For Panasonic system, disconnect backup camera cable (RCA) from converter and reconnect into TripTek computer enclosure marked CAMERA. Take video cable that came with system and connect from enclosure marked MONITOR to where cable was removed.

## **Connect Wire Harness**

Take wire harness (noted above) and connect to computer enclosure marked DATA.

## Fuse

Insert supplied 1 amp fuses into fuse holders.

# Start Up

If there are any problems in the following start up process, refer to Appendix B Troubleshooting.

Turn the ignition key to the ON position, making sure the monitor is also turned on. An initialization screen should come up first on the monitor. After 10 seconds it should turn off and the CHECKLIST screen should come up.

Sequence through the screens by pressing the view key and try all keys according to the operator's manual. Also, while a data screen is displayed, put coach in reverse – the data should turn off and the rear picture should be displayed.

Start the engine and check for proper operation of the display. If the display responds to the running engine by displaying engine data, finish the installation. If the display does not work correctly, refer to Appendix B Troubleshooting.

# Appendix B Troubleshooting

1. Picture does not come up on monitor.

Check all connections of video cable – from camera cable to monitor.

2. No data screens are displayed on the monitor.

Check the data link connection and verify that you are getting 12 volts switched and unswitched power. Check camera and monitor connections and verify they are correct.

3. The TODAY screen does not come up and the initialization screen stays on the monitor.

 Check the data link connection and verify the positive and negative are connected properly.

 Checking output voltage of data link from engine:

 Positive DataLink
 4-5 VDc

 Negative DataLink
 0-1 VDc

4. When the ignition is turned on the initialization screen always comes up resetting the first three screens to zero.

Power to system is connected to ignition (switched). Change to unswitched power.

5. Keys are not functioning properly on keypad.

Check that keypad connector is plugged in securely.

6. The data on the screen has a jitter.

Check all ground connections and they are grounded properly.

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