

P/N: 250-DS-UDXSR

UDXSR Features:

- Tachometer.
- Speedometer (requires sender)
- Odometer and Trip Odometer
- Water Temperature
- Oil Pressure
- Oil Temperature (transmission or engine)
- Fuel Level (requires sender)
- Indicator lights for the following items:
 - o Low oil pressure warning
 - High oil temperature warning
 - High water temperature warning
 - Low battery voltage warning
 - Parking brake indicator
 - Turn signal indicator
 - High beam indicator
- External warning light output.
- External shift light output.
- Relay output for automatic cooling fan control.
- V-Net port for expansion of up to 32 additional channels. (requires PC software)
- Minimum and Maximum value recall.
- Electro luminescent(EL) back light.

Package Contents:

The Ultra Dash kit should contain the following components:

- 1 UDXSR Display
- 1 15 position connector and wire terminals
- 1 12 position connector and wires
- 1 Water temperature sensor
- 1 Oil temperature sensor
- 1 Oil pressure sensor
- 1 Instruction manual
- 1 Cut out template

INSTALLATION

Selecting a Mounting Location:

Select a mounting location that does not expose the Ultra Dash to temperatures over 185° F. Also avoid exposing the LCD to direct sunlight. Extreme overheating from the sun can temporarily cause the LCD to turn entirely black.

Dash Mounting:

Once you have decided on a mounting location use the supplied template to cut out the rear dash inserts and drill holes for the mounting studs.

Use the supplied machine nuts and locking washers to bolt in the dash. <u>Do not use nylock nuts</u> on the mounting studs.

Port Description and Wiring:

Connector Locations



Port A --- Port A is used to connect the main power source, indicator light inputs, tachometer and speedometer. See the section **Port A Wiring** for complete instructions.

Port B --- Port B is used to connect the cooling fan relay, external warning and shift lights. See the section **Port B Wiring** for complete instructions.

Serial Port --- The serial port is used to program the dash using PC software (optional).

V-Net Port --- The V-Net port can be used to install up to 32 additional analog or digital inputs.

Port A Wiring:



Port A uses the 15 position connector. To properly crimp the provided sockets we recommend using a tool designed to crimp open barrel contacts. Optionally, if you do not already have an existing wiring harness in the vehicle, you can purchased a UDXSR wiring set with the sockets pre-crimped. The color code for the wiring set is provided in the above diagram. Disregard these colors if you are not using the optional UDXSR wire set. If you would like to purchase a crimp tool or wiring set from Racepak call 949-709-5555.

Crimp tool P/N: 800-XP-CRIMP01F (\$40) UDXSR wiring P/N: 280-CA-HARNUSRW (\$30)

Pin 1 – Water temperature sensor input – Insert the water temperature wire in pin position 1. Connect the other end of the wire to the water temperature sensor using the supplied #10 ring terminal.

Pin 2 – Oil temperature sensor input – Insert the oil temperature wire in pin position 2. Connect the other end of the wire to the oil temperature sensor using the supplied #10 ring terminal. This sensor can be installed in the transmission or engine.

Pin 3 – Oil pressure sensor input – Insert the oil pressure wire in pin position 3. Connect the other end of the wire to the oil pressure sensor using the supplied #10 ring terminal.

Pin 4 – Fuel level sender input – Insert the fuel level wire in pin position 4. Connect the other end of the wire to the fuel sender output signal.

Pin 5 – Not used, open for future use.

Pin 6 – Left turn signal indicator input –Insert the left turn signal indicator wire in pin position 6. Connect the other end of the wire to the left turn signal circuit on the vehicle. Applying power to this input will cause the turn signal indicator light on the dash to turn on.

Pin 7 – Right turn signal indicator input –Insert the right turn signal indicator wire in pin position 7. Connect the other end of the wire to the right turn signal circuit on the vehicle. Applying power to this input will cause the turn signal indicator light on the dash to turn on.

Pin 8 – Parking brake indicator input –Insert the parking braking indicator wire in pin position 8. Connect the other end of the wire to the parking brake switch on the vehicle. Grounding this input will cause the parking brake indicator light on the dash to turn on

Pin 9 – High Beam Indicator Input – Insert the high beam indicator wire in pin position 9. Connect the other end of the wire to the hot side of the high beam circuit on the vehicle. Applying power to this input will cause the high beam indicator light to turn on. If you are not going to use the high beam indicator you must ground the input or the indicator will remain on all the time.

Pin 10 – Switched 12 volt input – Connect this input to a <u>fused</u> 12 volt power source that is hot only when the ignition switch is on.

Pin 11 – Not used

Pin 12 – Speedometer input – Connect this input to the output of your speedometer sender. See the **Speedometer Sender Interface** section for instructions on interfacing with your speedometer sender.

Pin 13 – Constant 12 volt input – Connect this input to a constant <u>fused</u> 12 volt power source. This wire is only required if you want the dash to remain on for a user defined period of time after the ignition switch has been turned off. For instance, this wire is required if you want the electric cooling fan to remain on after shutting off the engine. See the **Setup Mode** section for information on programming the auto off timer.

Pin 14 – Ground – Connect this input to a solid chassis ground.

Pin 15 – Tachometer input – Connect this input to the tach output signal from your ignition box. The tachometer input requires a standard 5 – 20 volt square wave signal to work properly. DO NOT CONNECT THIS WIRE DIRECTLY TO THE IGNITION COIL. DOING SO CAN DAMAGE THE CIRCUIT.

NOTE: We recommend using a 3 to 5 amp fuse when making the power connections on pins 10 and 13. The safe operating voltage range is 9 - 18 volts DC.

Port B Wiring:



Port B uses the 12 position connector. Since all port B inputs are optional the wires are provided with the connector pins crimped but the wires are not installed in the connector. A description of each wire and its function is described below. If you decide not to use an input you may leave the wire uninstalled.

- Pin 1 Not used
- Pin 2 Not used
- Pin 3 Not used
- Pin 4 Not used

Pin 5 – Fan relay driver output, positive – Insert the gray wire in pin position 5. Connect the other end of the gray wire to the positive side of the fan relay coil. Pin 85 on a standard automotive relay. See the **Cooling Fan Wiring Diagram** below.

Pin 6 – Fan relay driver output, negative – Insert the purple wire in pin position 6. Connect the other end of the purple wire to the negative side of the fan relay coil. Pin 86 on a standard automotive relay. See the **Cooling Fan Wiring Diagram** below.

Pin 7 – Not used

Pin 8 – External warning light output, positive – Insert the green wire in pin position 8. Connect the other end of the green wire to the positive side of the warning light.

Pin 9 – External warning light output, negative – Insert the yellow wire in pin position 9. Connect the other end of the yellow wire to the negative side of the warning light.

Pin 10 – Not used

Pin 11 – External shift light output, positive – Insert the orange wire in pin position 11. Connect the other end of the orange wire to the positive side of the shift light.

Pin 12 – External shift light output, negative – Insert the blue wire in pin position 12. Connect the other end of the blue wire to the negative side of the shift light.

NOTE: The external warning and shift light output can drive a maximum of 500mA of current each. We recommend using LED style lights due to their low current consumption.

The wire colors indicated below are only valid when using the optional UDXSR wiring set. Disregard these colors if you are using your own wiring harness.



WARNING!!!!!

Using the automatic cooling fan controller may cause the fan to turn on at any time. <u>Make sure you disconnect the battery before working near the fan motor.</u> Failure to do so may result in severe bodily injury.

INSTALL THE PROVIDED WARNING LABEL NEXT TO THE FAN

Oil and Water Sensor Installation:

The water and oil sensors provided use 1/8" NPT thread. An adaptor may be required to accommodate larger thread sizes. Make sure to use thread sealer when installing the sensors to prevent water and oil leaks.

Speedometer Sensor Interface:

Sender Type

The Ultra Dash requires and electrical speedometer output signal from the transmission. There are two different types of speedometer sender outputs, hall effect and sine wave. Most aftermarket speedometer senders use the hall effect type, which is the factory default setting. If the sender you are using has a sine wave output you will need to change the sensor type setting in the dash. See the section **Setup Mode** for programming instructions.

Calibration

The factory default setting is 16,000 pulses per mile. The standard when converting from most cable driven speedometers is 16 pulses per revolution and 1000 RPM @ 60 MPH. This gives you 16,000 pulses per mile. However, since most applications will not have the original tire diameter and/or rear gear ratio we recommend performing the calibration procedure outlined in the **Speedometer Calibration** section.

Fuel Level Sender:

Table 4 shows the six different types of fuel senders supported. If you are not sure of the type you are using you will have to measure the resistance with an ohms meter or for best accuracy use the custom setting. Enter the correct fuel sender type while in the dash setup mode. See **Setup Mode** below.

Dash Setup Fuel Sender Type	Resistance Empty - Full	Typical Application		
6	240 - 33 Ohms	Stewart Warner senders		
7	16 -158 Ohms	Most Fords, 1989 & later		
8	0 - 90 Ohms	Most General Motors 1965 to present		
9	73-10 Ohms	Most Ford Prior to 1989 & Chrysler		
10	10 – 180 Ohms	VDO senders		
11	Custom	Custom calibration		

Table 4

Installing V-Net Channels:

Adding V-Net channels requires DataLink PC programming software and serial cable. The software allows you to program which channel you would like to view in the various display positions. Without this software you will not be able to view channels added to the V-Net port. Contact Racepak or your dealer for purchasing information.

You can add up to 32 additional channels to your Ultra Dash by installing modules on the V-Net port. For instance, if you wanted to monitor turbo boost pressure you would need to purchase a boost pressure V-Net module. Follow the steps below to add V-Net modules to your Ultra Dash.

<u>Step #1</u> — Unplug the factory installed terminator cap from the V-Net port on the back of the dash

<u>Step #2</u> — Plug the V-Net extension cable in the V-Net port.

<u>Step #3</u> — Plug the other end of the V-Net cable in to the first V-Net module. You can install up to five V-Net modules. You can plug the V-Net modules in any order that is convenient. The modules can be plugged directly in to each other or a V-Net extension cable can be used between modules if necessary.

<u>Step #4</u> — Plug the terminator cap removed in step #1 in to the last V-Net module.



PROGRAMMING AND OPERATION

Getting Started:

After installation the first thing you should do is configure the setup parameters. This is required to set the proper sensor types, calibrate the speedometer and set the oil and water warning limits. See **Setup Mode** for more information.

How the Buttons Work:

Each button can perform three different functions depending on how long the button is held down. In this manual we will refer to the three different button press types as SHORT, MED and LONG. To help determine when to release the button, and as a result the type of button press, you need to look at how many times the warning indicators in the upper corners of the dash flash. If you release the button after one flash a SHORT button press will be entered. Releasing the button after two flashes will result in a MED button press and three flashes will result in a LONG button press. Table 1 list the three different button press types.

Туре	Warning Flashes	Time in Seconds
SHORT	1	Less than 2
MED	2	2
LONG	3	3 or more





Figure 1 illustrates the channel positions and labels the terminology used in this manual to describe each position on the LCD display. There are six channel positions on the LCD and six indicator lights. The lower left channel position can display both numbers and letters. The other five positions can only display numerical values.

Display Modes:

The behavior of each button press depends on the mode the dash is currently in. See the appropriate section below for a list of button behaviors in each mode.

There are 3 different modes.

- Setup Mode
- Real-time Mode
- Min Max Recall Mode

Setup Mode:

Enter setup mode by entering a MED press on the **button** by pressing and holding the button for two warning light flashes. While in setup mode a SHORT press on the **button** will change to the next setup parameter. A MED press on the **button** will step back to the previous setup parameter. A SHORT press on the **button** will increment the value in small steps. Press and hold on the **button** will increment the value in large steps. A MED press on the **button** will decrement the value. To exit setup mode enter a LONG press on the **button** until the word WAIT is displayed in the lower left LCD position. <u>Make sure you do not turn the dash off until the</u> word WAIT has disappeared and the dash has reset.

Table 2 shows the button behavior while in Setup mode.

Button	SHORT Button Press (one light flash)	MED Button Press (two light flashes)	LONG Button Press (three light flashes)
DISP	Move to next setup parameter	Move to previous setup parameter	Exit Setup mode
ODO	Increment setup parameter value in small step	Decrement setup parameter value	Increment setup parameter value in large step (press and Hold)
			T = 6.1 =

Table 2

Table 3 shows each setup parameter and the available options.

#	Parameter Description	LCD Code	Available Option Lower Right LCD	Factory Default
1	Default back light intensity level	bLI T	Level 0-9 9 = highest level 6 = factory default	6
2	Default Display Page (see Real-time Mode)	dI SP	1 – 2	1
3	Units of Measure	Units of Measure UNI T 0=English 1=Metric		0
4	Engine RPM odd fire	0ddF	0-8 Set to 0 if your engine is not an odd fire	0
5	Engine RPM pulses per revolution	R1 P	0-20 Usually, number of cylinders ÷ 2	6

6	Swept Bar rpm scale for tachometer	SCAL	0 = 11,500 rpm max 1 = 13,500 rpm max	0
7	Engine RPM rev warning	REVL	0 – 20,000 RPM	8,500
8	Speedometer sender type	R2TY	0 = Hall Effect 1 = Sine Wave	0
9	Speedometer pulses per revolution	R2 P	0 – 20	16
10	Speedometer Pulses Per 1/8 Mile/K (see Speedometer Calibration)	P8MI	0 – 20,000 Value entered should be divided by 10. If the real value is 2000 then enter 200	200
11	Speedometer Pulses Per 1 Mile/K (see Speedometer Calibration)	P1MI	0 – 20,000 Value entered should be divided by 10. If the real value is 16000 then enter 1600	1600
12	Odometer start value	0d0S	0 – 327,600 Value entered should be divided by 10. If the real value is 1000 then enter 100	0
13	Water temp. sensor type	WTYP	0-6 4 = standard sensor provided with kit	4
14	Oil temp. sensor type	ΟΤΥΡ	0-6 4 = standard sensor provided with kit	4
15	Oil PSI sensor type	ΡΤΥΡ	0-6 5 = standard sensor provided with kit	5
16	Fuel level sensor type (see Fuel Level Sender)	FTYP	6 = 240 - 33 ohm 7 = 16 - 158 ohm 8 = 0 - 90 ohm 9 = 73 - 10 ohm 10 = 10 - 180 ohm 11 = custom	6
17	Not used at this time	STYP	0 – 6	5
18	Left turn indicator input value when ON.	LTON	0 = input is grounded when ON 1 = input has voltage when ON	1
19	Right turn indicator input value when ON.	RTON	0 = input is grounded when ON 1 = input has voltage when ON	1
20	High beam indicator input value when ON.	HbON	0 = input is grounded when ON 1 = input has voltage when ON	1
21	Parking brake indicator input value when ON.	PbON	0 = input is grounded when ON 1 = input has voltage when ON	0

22	Low oil pressure alarm level	LOI L	0 – 300 PSI	30
23	High oil temperature alarm level	HOI L	0 – 300 Deg.	220
24	High water temperature alarm level	HWAT	0 – 300 Deg.	220
25	Cooling fan on temperature	F ON	0 – 300 Deg.	170
26	Custom fuel level empty value	FTLO	Only used when fuel level sensor type 11 is selected	
27	Custom fuel level full value	FTHI	Only used when fuel level sensor type 11 is selected	
28	Auto off time.	MXON	0 – 100 minutes	2

Table 3

Speedometer Calibration:

The speedometer, odometer and trip odometer may not read correctly until you perform the following calibration procedure.

- 1) Enter setup mode by entering a MED press on the **Description** button.
- 2) Step through each setup parameter by entering a SHORT press on the **DISP** button until you reach the **P1MI** parameter in the lower left LCD position.
- 3) Drive exactly one mile and stop. If you are using metric units drive exactly one kilometer.
- 4) Enter a LONG press on the **button** to set the calibration factor.
- 5) Exit setup mode by entering a LONG press on the **DSP** button until the word **WAIT** is displayed in the lower left LCD position.

Custom Fuel Level Calibration Procedure:

- 1) Empty the fuel tank to the level you wish to call 0%.
- 2) Turn on the dash and enter setup mode by entering a MED press on the **button**.
- 3) Step through the setup parameters by entering a SHORT press on the button until you reach the FTYP parameter in the lower left LCD position. Use the button to select type 11.
- 4) Continue to step through the setup parameters by entering SHORT presses on the button until you reach the FTLO parameter in the lower left LCD position.
- 5) Enter a LONG press on the **button** to set the tanks empty value.
- 6) Enter a SHORT press on the **DISP** button to reach the next parameter FTHI.
- 7) Fill the fuel tank to the level you wish to call 100%.
- 8) Enter a LONG press on the **button** to set the tanks full value.
- 9) Exit setup mode by entering a LONG press on the **DSP** button until the word WAIT is displayed in the lower left LCD position.

Real-time Mode:

The dash will power up in Real-time mode each time it is turned on. While in Real-time mode you can scroll between the two different display pages by entering a SHORT key press on the button. The lower right ODO, TRIP and battery voltage display is controlled by the button. Enter a SHORT key press on the button to switch between ODO, TRIP and battery voltage. To reset the TRIP odometer enter a LONG key press on the button.

	LCD Section	Channel Displayed	Display Tag
	Swept Bar	Engine RPM	
#	Middle Center	Speedometer	MPH or KPH
ΑY	Upper Left	Fuel Level	FUEL %
SPL	Lower Left	Water Temperature	WATER
ā	Lower Center	Oil Pressure	OIL 1
	Lower Right	Odometer / Trip / Battery Voltage	ODO / TRIP / blank
	Swept Bar	Speedometer	
#2	Middle Center	Engine RPM	RPM
ΑY	Upper Left	Fuel Level	FUEL %
SPL	Lower Left	Water Temperature	WATER
ā	Lower Center	Oil Temperature	OIL 2
	Lower Right	Odometer / Trip / Battery Voltage	ODO / TRIP / blank

Table 5 shows the channel positions for the two display pages.

Table 6 shows the behavior of each button while in Real-time mode.

Button	SHORT Button Press (one light flash)	MED Button Press (two light flashes)	LONG Button Press (three light flashes)
DISP	Change display pages	Switches between Real-time, min & max modes	Reset minimum & maximum recall values
ODO	Toggle between ODO, TRIP and battery voltage	Enter Setup Mode	Reset trip odometer

Table 6

Min – Max Recall Mode:

The min – max recall mode displays the minimum and maximum reading on all channels since the dash was turned on or the min – max values have been manually cleared. To display the minimum values enter a MED press on the DSP button. The word MIN will be displayed under the swept bar. To display the maximum values enter another MED press on the DSP button. The word MAX will be displayed under the swept bar. While you are in min – max mode you may change displays to see additional channels if needed. To return to Real-time mode enter another MED press on the DSP button.

To clear the minimum and maximum values enter a LONG press on the DISP button.

Warning Indicators:

The Ultra Dash has three types of warning indicators.

- Internal warning lights.
- Alpha display in the lower left position on the LCD.
- External warning light output. (see Wiring Port B).

Table 7 shows how the warning indicators operate.

Warning or Indictor Cause	Alpha Display	Internal Warning	External Warning
High water temperature	H2OT	1	YES
High oil temperature	OILT	OIL	YES
Low oil pressure	OILP	OIL	YES
Battery below 11 volts	BATV	BAT	YES
Left turn signal on	NONE	\leftrightarrow	NO
Right turn signal on	NONE	\leftrightarrow	NO
High beam on	NONE		NO
Parking brake on	NONE	BRAK	NO

Table 7

Programming Using the DataLink PC software (Optional)

The DataLink software can be used to customize the configuration your Ultra Dash. The DataLink software is required if you wish to add channels to the V-Net port or customize the LCD display pages.

DataLink Software CD Installation

Insert the disk in your CD drive and close the bay door. The installation program should run automatically. If it does not, follow the instructions printed on the CD label.

After the program has been installed a new shortcut icon will be added to your desktop with the title "DataLinkII Program". Double click on the icon to start the DataLink software. The first time you run the software you will be asked for a license disk. Click on the "Demo Only" button.

Connecting the Data Logger Serial Communications Cable

The next step is to connect the UDX serial communication cable to the serial communications port on your PC. You will be connecting the DB9 female connector end of the logger serial communication cable to the mating connector on your PC. In most computer systems the mating connector will be labeled "Serial" or "COM". If your PC does not have a serial port you can use a USB to serial port adaptor. These adaptors are available at most computer stores for around \$50.

The next step in the software installation is to tell the DataLink software which serial communications port on your PC you have connected to the serial communications cable. To do this, turn on your PC and start the DataLink program by clicking on the ICON on the Window's desktop. Next click on *Preferences* from the menu bar then select *Settings*. The dialog box on the right will be displayed.

dit Prefe	erences						1
User sca User sca	ale begin ti ale end tim	me [s]: e [s]:	-0.5 10			ouse Prefi • Traditio • Standa	erences mal Racepak rd Windows
Cartride U PIO c User Title	ge Downlo SB OI ard addres e: el Font Siz	oad Hardv PIO Card :s (dec): :e	Vare O Dby 768	g File		ogger CON COM1 COM1 COM10 COM2 COM3 COM4	1 Port
' 8	12		, 20	, 24	, 28	, 32	
-Log Fo	ont Size —						
						<u> </u>	

Locate the **Logger Com Port** selection box and select the communications port to which the serial communications cable is connected. If the serial port you are using is built in to your PC the port should be marked near the connector. If you are using a USB to serial adaptor then you must follow the instructions provided with the adaptor to determine which port the adaptor software has installed itself on. Once you have selected the proper serial port select **OK** to accept your selection.

VDASH Module	N/S	Oil Temp	N/S	Display Page #2	N/S	Oil Temp Ind	N/S
Shift Lite	N/S	Oil Press	N/S	Display Page #3	N/S	Warning Light 8	N/S
Engine RPM	N/S	Fuel Level 1	N/S	Display Page #4	n/s	Warning Light 9	N/S
Drive Shaft Rpm	N/S	Spare	N/S	High Beam Ind.	N/S	Warning Light 10] N/S
Turn Signal Left	N/S	Battery Volts	N/S	Turn Sig Ind	N/S	Warning Light 11	N/S
Turn Signal Right	N/S	Aux Digital #1	N/S	Park Brake Ind	N/S	Warning Light 12] N/S
Park Brake	N/S	Speed	N/S	Water Temp Ind	N/S	Water Relay	N/S
High Beam	N/S	LapMarkers	N/S	Oil Press Ind	N/S	Relay #2	N/S
Water Temp	N/S	Display Page #1	N/S	Battery Volt Ind	N/S		25

Modifying the Dash Configuration

Each time you wish to modify the configuration of your dash you will need to perform the following steps;

- 1. Connect your PC to your data logger via the serial interface cable.
- 2. Start the DataLink program on your PC
- 3. Open the car configuration file by selecting **Open Car Configuration** under **File** from the menu bar.
- 4. Select the display page number to be modified by positioning the mouse cursor over the channel button and click the **right** mouse button.
- 5. Make the desired modifications to the display page.
- 6. Apply power to your dash
- 7. Send the modified setup to the Ultra Dash.
- 8. Save the modified car configuration file.

The first step is to connect your PC to your dash using the serial interface cable supplied with the DataLink software. The next step is to start the DataLink program by clicking on the DataLink icon located on the Windows desktop on your PC. Open the configuration file by clicking **File** on the menu bar then selecting **Open Car Configuration**. The following dialog box will appear.

Select Configuration			
Standard Configs VNET	~	UDXEFI(Autronic) UDXSR UDXSR(Autronic) V300 V500 V50C	<u>×</u>
	×		~
		Cancel	ок

On the list on the left-hand side of the **Select Configuration** box click on **VNET**. On the right side click on **UDXSR**. Select **OK** to open the selected configuration file.

The next step is to read the current setting from the dash. To do this, connect the supplied serial cable between the dash and your PC and turn on the dash. Next, start the DataLink software and click on **Edit** from the menu bar and select **Read VNET Config.** A status message box will appear, if everything is working correctly you see the message "Devices Read Successfully" when finished.

The wrench icon in the run file tab is used to indicate that this file is a car configuration file. Each of the buttons represents one of the devices/channels in your system. For instance the VDash Module button represents your Ultra Dash, the Engine Rpm button represents the engine rpm channel.

The configuration file will contain buttons for all of the hardware channels required to properly operate the dash. The only button you should modify are the ones label Dash Page #1, Dash Page #2, Dash Page #3, Dash Page #4.

IT IS VERY IMPORTANT THAT YOU ONLY MODIFY THE PARAMETERS ON THE DISPLAY PAGE #1-4 CHANNEL BUTTONS. DO NOT MODIFY THE PARAMETERS ON ANY OF THE OTHER CHANNEL BUTTONS.

Changing the parameters on any of the other channels may cause your dash to operate improperly.

Changing Display Page Properties

The channel buttons labeled "Dash Page #1", "Dash Page #2", "Dash Page #3", "Dash Page #4" represent

the four LCD display pages that change when you press the **DISP** button on the dash. If you would like to change the variables displayed on a display page or change the characteristics of the displayed value perform the following.

- 1) Right click over the channel button of the display page you wish to change.
- 2) Review the instructions in the upper left dialog box.
- 3) Locate the graphic representation of the dash to the left of the help box and click on the button of the display to be modified.
- 4) Enter the desired parameters.
- 5) Click OK to accept the changes.
- 6) Repeat for all displays to be modified.
- 7) When you are finished editing each display set, click on the **SEND Configuration** button in the lower right corner.

Pialog		E
Narke Dopkey Page #1 Und Sosol # 23 Channel Type: VDash_Dop	VnxO ach SETUP INSTRUCTIONS: This dialogboxis used to retup one of the tour sets of display pages that can be above on the BacePark UltraD ash. Each display page is compliated of a unequitation to biar graph and 5 marries displays. The explainties of each of the marries displays is slightly different and as such are before such of the displayer displays is used to have a law of the display page.	(10)
Fuel Level 1 5700 Ergine RPM 4200 Marcon Reserved a 3bc Marcon Re	generated variables such as lap time only and max egits can only be displayed on papelie numeric displays. This will be convendimment detail below. To change the programming on the swept tach or numeric display simply locate the deviced display on the graphic to the left of his help box Position the nouse currer over the display and click the right mouse buttor. A display on vitage to allow editing the educ of the melected display. Two types of diskip boxes are displayed. Dre- deleg box to programming the avery tach and a separate displayed the the programming each of the numero displays. These are discussed	×
Gauge Options Enclote D 10	EanyEditID 13	
	ID of the Easy Edito use	(1)
		~
	SEND Configuration Cancel	

Adding or Removing V-Net Devices to your System

If you add or remove modules from you system, you will need to update your configuration file to match the configuration of your onboard system. If the changes are permanent you should edit your existing configuration file to match the new setup.

To update the configuration file load the appropriate configuration file by using the **Open Car Configuration File** menu selection located in the **File** main menu selection. Make sure the configuration file is the active file by positioning the mouse cursor over the file tab for the file and click the left mouse button. Connect your PC to the dash using the serial communication cable and power up your system. Next select the **Read VNet Config** selection located in the **Edit** main menu selection. The DataLink software will now query the V-Net modules in your system and will read in the current configuration of the system. During this process a message log dialog box will be displayed. The progress of the read will be displayed in the message log box.

If a V-Net module that is included in the current configuration file is not found in the System, the following message will be displayed.



If you have removed the module from the system you should select **Yes** to remove the module from the configuration file. If you have not removed the module from the system you should select **No** and then inspect your system to be sure the module is properly installed. When you have corrected the problem you should repeat the process above.

If you have added modules to the V-Net system the DataLink software will automatically insert new channel buttons for the new modules. You should review the programming of the dash display pages as detailed above and make any desired changes.

Six Month Limited Warranty on Parts and Workmanship

Purchaser's only remedy and seller's only liability shall be to repair or replace materials provided by the purchaser to be defective and returned to seller with a copy of purchaser's receipt. Seller shall not be liable for any injury, expenses, profits, loss or damage, direct, incidental, or consequential, or any other pecuniary loss arising out of the use or inability to use the product in question even if seller has been advised of the possibility of such damages. Because some states do not allow the exclusion or limitation of liability for consequential or incidental damages, the above limitation may not apply to you.

It is purchaser's responsibility to notify seller of suspected defects as soon as purchaser becomes aware of them, and to follow seller's instructions to minimize further damage. Seller is not responsible for damage resulting from purchaser's inaction.

Competition Systems, Inc./Racepak 30402 Esperanza, Rancho Santa Margarita, CA 92688 949-709-5555