



## Part Number: 280-CA-EFIOBDII

### OBDDII Adapter Harness for IQ3S, IQ3D, Universal CAN & Vantage EFI Interface module

Works with 2008 and later model year OBDII CAN systems

#### Description:

This adapter harness has been designed to plug in to the OBDII diagnostic port to interface and stream the vehicles information to the Racepak IQ3S, IQ3D, Vantage CL1 or the Universal CAN module. Once connected and properly setup, data from the ECU is then available for use with the Racepak IQ3S, IQ3D, Vantage CL1 or the Universal CAN module. to enable use of all Racepak V-Net devices including real time telemetry, and data logging applications.

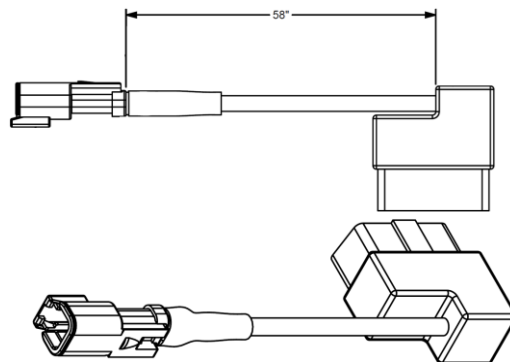
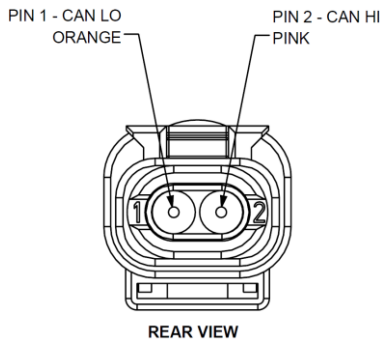
#### Harness Installation:



**Before connecting, be sure the IQ3S dash does not have the ECU interface currently activated for a different ECU type as this may disable the vehicle from running while OBDII connector is plugged in. You can do this by using the pushbuttons to enter Setup Mode 1, scrolling through to ECU type to ensure only "Disabled" or "OBDII" is selected.**


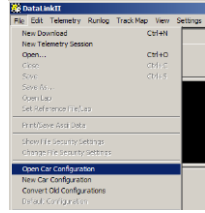
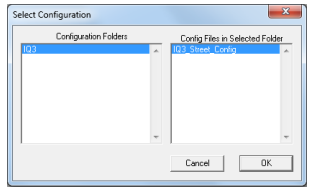

Locate the 2 pin Deutsch connector found on main harness of the IQ3S Street Dash or Racepak Universal CAN module. Plug pre-terminated 2 pin mating Deutsch of the adaptor harness into this connector. Route the wires from the adaptor harness to the OBDII diagnostic port. This port is normally located within reach of the driver and typically does not require any special tools to be revealed although some manufacturers may use plastic covers to protect the integrity of the connector. Some locations to look for this port would be under the dash, between the steering column and the center console, behind ash trays. For further information, it is suggested to contact the dealer to verify where the OBDII connector is situated on your particular vehicle. Two additional pins are provided if you wish to shorten the adapter harness.

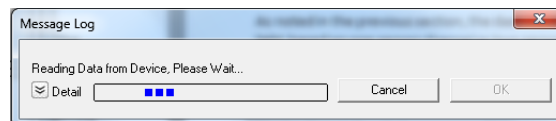
**2 PIN DEUSTCH FROM DASH**  
**YELLOW WIRE - CAN HIGH**  
**GREEN WIRE - CAN LOW**



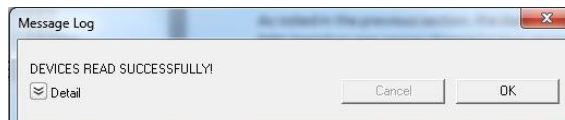
## Configuration File Update (IQ3S Street Dash):

Before the channels from the ECU can be displayed on your IQ3S dash, you will need to update enable the ECU interface on the IQ3S dash, sync the channels into the configuration file and then program the selected channels to be displayed on the dash screen(s).

1. Connect PC to IQ3 Street Dash unit using the USB programming cable supplied with the IQ3 Street Dash unit system. The programming port is located on the rear of the IQ3 Street Dash unit.
  2. Ensure the main power is turned on for the IQ3 Street Dash. The dash backlight will be on and lit when power is on.
  3. Start the DatalinkII program by double clicking on the DatalinkII Program icon located on the Windows desktop of PC (shown right).
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4. Open the car configuration file. To open the car configuration file, select **File** located in the main menu bar across the top of the screen and select **Open Car Configuration**. (Shown right).
- 
5. The dialog box (shown lower right) will be displayed.
  6. The list on the left-hand side of the **Select Configuration** dialog box will display all of the file folders in the RacePakData subdirectory (C:\RacePakData) that contain valid configuration files with a .rcg file extension. Select the IQ3 listing by selecting with the cursor.
- 
7. The list on the right will now contain the list of configuration files contained in this folder. The factory configuration file for the IQ3 Street Dash unit will be located here.
  8. Once the IQ3\_Street\_Config is selected, select the OK button.
  9. The configuration file for the IQ3 Street Dash is now open.
  10. Click **Edit** on the menu bar and select **Read V-NET Config**.
  11. A dialog box (shown right) may appear asking if you wish to make this configuration the default configuration file. If this is the only Racepak system you will be programming, select the top option to make it the default. If using this PC to program more than one Racepak system, select the second box.
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12. A message log will appear and should begin reading your system configuration.



13. When finished the message log should display **\*\*\*DEVICES READ SUCCESSFULLY\*\*\***.



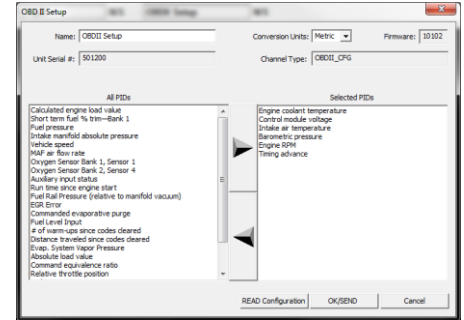
14. Click on the OK button.
  - a. If the ECU interface was turned on using the pushbuttons/Setup Mode 1 you should now see a new channel buttons (boxes) for each channel.
  - b. If the ECU interface was not previously enabled, you can do so using the pushbuttons/Setup Mode 1, and then repeat the Read process after which the new ECU channels will appear.
  - c. If the ECU interface was not previously enabled, you can do so using the DataLink Software,
    - i. navigate to the Dash Info tab by right clicking on the main channel button labeled **IQ3 Street**
    - ii. Select Dash Info tab, locate the listing ECU Type under the Custom Programming Options
    - iii. Click on ECU type and select your ECU from the drop down list on the right

- iv. Select Send Configuration
- v. Exit the LCD Dash Configuration window to return to the main configuration window and repeat the Read process after which the new ECU channels will appear

15. A new channel button named **OBDII Setup** will be added to the configuration file

16. To select channels to be displayed, position the mouse cursor over the **OBDII Setup** channel button and click the right mouse button. The OBDII Setup dialog box will be displayed.

- The **ALL PIDS** column, shown on left, represents all identifiable OBDII data channels found during the previous Read V-Net config procedure.
- The **Selected PIDS** column, shown on right, represents all channels selected by the user to record/display.
- To **add a channel**, select the channel on the left and click the right arrow to place in the Selected Channel area.
- To **remove a channel**, select the channel on the right and click the left arrow.
- You can select English or Metric units using the Conversion Units drop down menu.



**A maximum of 20 channels can be selected.**

17. After you have selected the channels you wish to stream, you will need to send the selected channels to the OBDII module. This is done when the OK/SEND button is selected.

18. New channel boxes are created on the main configuration page for each channel that was selected in the previous step.

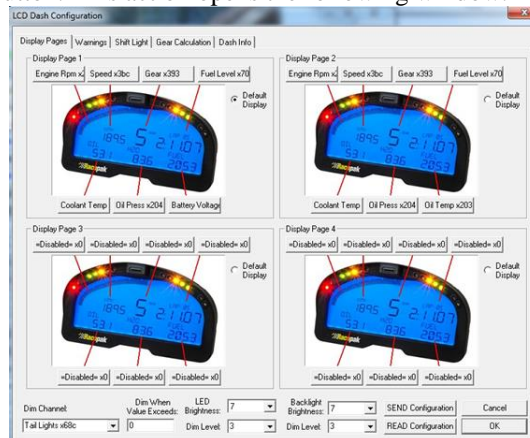
19. Should you wish to change the name of a particular channel, you can do so by right clicking on any of the channel boxes to modify/change their parameters.

20. Once any change is made, you must select **Send Configuration** to send change to the dash.

21. The channels are now ready to be selected and programmed to the Display pages.

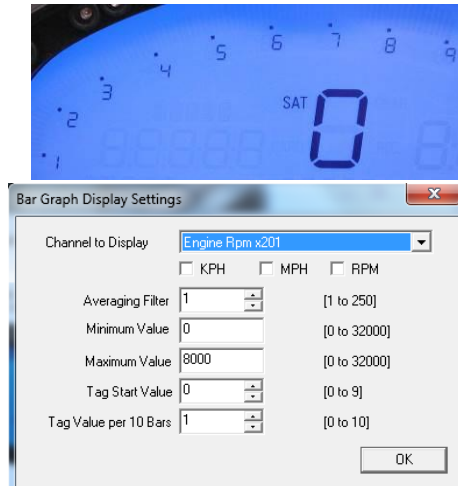
## Programming the Display Pages

Right click over the IQ3 Street Channel Button. This action opens the following window:



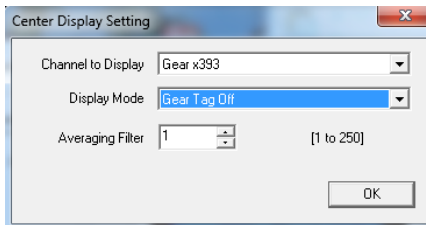
A view representing the current programming of all four display pages is obtained by selecting the Display Pages tab. Each input is programmed by selected the text box related to that input area, as indicated by the red line extending down to the dash, from each text box.

## Bar Graph (Sweep Tach)



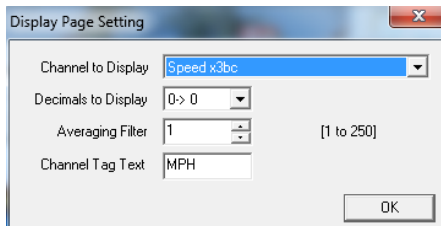
Function	Description
KPH MPH RPM	Selection defines channel name on dash
Channel to Display	Pull down arrow selects channel for bar graph data
Averaging Filter	Smooths displayed data. 10 is default
Minimum Value	Determines starting point for bar graph
Maximum Value	Determine ending point for bar graph
Tag Start Value	Determines start value for bar graph
Tag Value per 10 Bars	Determines value for each 10 bar segment. <b>There are a total of 8, 10 bar segments for 80 total bars.</b> Channel tag value <b>must</b> be equally divisible by the 80 bars to correspond correctly with a channels actual reading.
OK	Closes window following programming changes

## Gear Indicator (center of dash) "Gear Position"



Function	Description
Channel To Display	Pull down arrow selects sensor channel
Averaging Filter	Smooths displayed data. 10 is default
Display Mode	Selects when to display the gear number in the center display.
OK	Closes window following programming changes

## Remaining Inputs



Function	Description
Channel to Display	Pull down arrow selects sensor channel
Decimals to Display	Number of digits to display after decimal
Averaging Filter	Smooths displayed data. 10 is default
Channel Tag Text	Name/channel label to be displayed. 5 total characters

As shown above, to program an input area, simply locate the desired sensor channel by use of the pull down arrow, select the sensor channel, then define the remaining values for Decimals to Display, etc.

Once the page is programmed as desired, select the SEND Configuration to send any changes to the IQ3S Street Dash. The dash should now represent the programmed parameters.

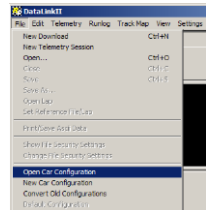
## Configuration File Update (Racepak Universal CAN module):

Before the channels from the ECU can be displayed on your Racepak device, you will need to sync the channels into the configuration file and then program the selected channels to be displayed and or recorded.

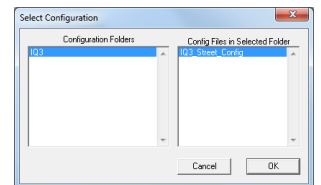
1. Connect PC to the Racepak device using the appropriate programming cable supplied with the device.
2. Ensure the main power is turned on for the Racepak device.
3. Start the DatalinkII program by double clicking on the DatalinkII Program icon located on the Windows desktop of PC (shown right).



4. Open the car configuration file for the Racepak device you are intending to communicate with. To open the car configuration file, select **File** located in the main menu bar across the top of the screen and select **Open Car Configuration**. (Shown right).



5. A dialog box will be displayed with a left and right pane.
6. The list on the left-hand side of the **Select Configuration** dialog box will display all of the file folders in the RacePakData subdirectory (C:\RacePakData) that contain valid configuration files with a .rcg file extension. Select the appropriate Racepak device.

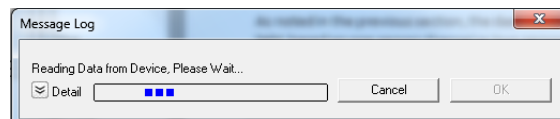


7. The list on the right will now contain the list of configuration files contained in this folder. Select the appropriate Racepak device you intend to communicate with and click the OK button.
8. The configuration file for the Racepak device is now open.
9. Click **Edit** on the menu bar and select **Read V-NET Config**.

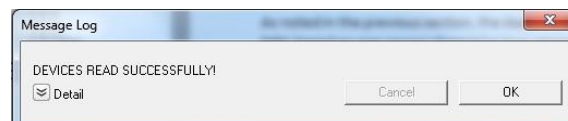


10. A dialog box (shown right) may appear asking if you wish to make this configuration the default configuration file. If this is the only Racepak system you will be programming, select the top option to make it the default. If using this PC to program more than one Racepak system, select the second box.

11. A message log will appear and should begin reading your system configuration.



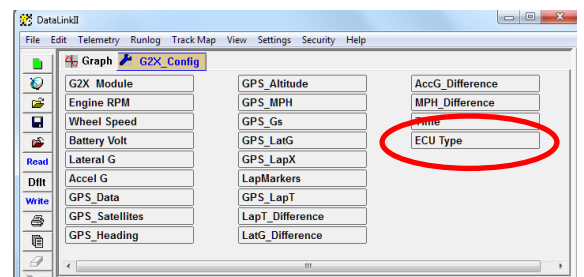
12. When finished the message log should display **DEVICES READ SUCCESSFULLY**.



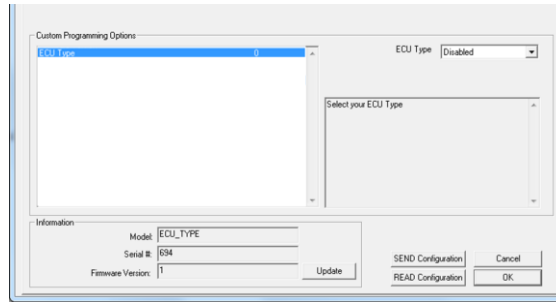
13. Click on the OK button.

14. If everything works properly, a new channel button named **ECU Type** will be added to the configuration file (shown right).

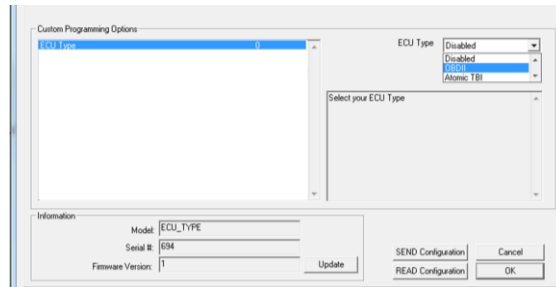
15. At this point, the particular ECU will have to be selected; you can do this by right clicking on the ECU Setup channel button.



16. Locate and select the line listed in the Custom Programming Options window labeled ECU Type.

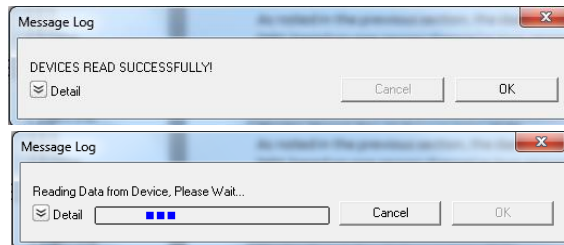


17. The drop down box to the right of the window can be clicked on and you will be able to scroll through the list of available ECU interfaces.



18. Select the ECU interface for the ECU you are connecting to.

19. Once selected, click the SEND Configuration button to program the Racepak Universal CAN module for that ECU.



20. When finished the message log should display **DEVICES READ SUCCESSFULLY**.

21. Click on the OK button on the ECU window to go back the main channel listing window.

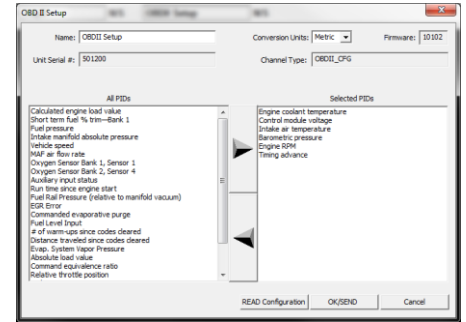
22. Click on the OK button.

- d. If the ECU interface was turned on using the pushbuttons/Setup Mode 1 you should now see a new channel buttons (boxes) for each channel.
- e. If the ECU interface was not previously enabled, you can do so using the pushbuttons/Setup Mode 1, and then repeat the Read process after which the new ECU channels will appear.
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  - iv. Select Send Configuration
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25. After you have selected the channels you wish to stream, you will need to send the selected channels to the OBDII module. This is done when the OK/SEND button is selected.
26. New channel boxes are created on the main configuration page for each channel that was selected in the previous step.
27. Should you wish to change the name of a particular channel, you can do so by right clicking on any of the channel boxes to modify/change their parameters.
28. Once any change is made, you must select **Send Configuration** to send change to the dash.

## Vantage EFI Interface Module setup:

Please visit the Vantage CL1 site for instructions on how to setup your Vantage EFI Interface Module

<https://docs.racepak.com/cl1-v2/Track-Day/Vantage-OBD2-Module-Programming.pdf>

If you have any questions regarding warranty, please contact customer service at Racepak LLC. 949-709-5555



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