Part Number: 280-CA-EFIHOL

Holley Adapter Harness for IQ3S, IQ3D, Universal CAN & Vantage EFI Interface Module

Description:

This adapter harness is used to connect the CAN bus data stream from the Holley Dominator/HP ECU 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.

Channel #	Channel Name	V_NET ID #	EFI Variable	Default Units
1	EFI Engine RPM	0x750	Engine RPM	RPM
2	EFI TPS	0x751	Throttle Position	%
3	EFI Oil Press	0x752	Oil Pressure	PSI
4	EFI Water Temp	0x753	Coolant Temperature	DegF
5	EFI Speed	0x754	Vehicle Speed	MPH
6	EFI Gear	0x755	Gear Selection	
7	EFI MAP	0x756	Manifold Pressure	kPa
8	EFI Air Temp	0x757	Intake Air Temp	DegF
9	EFI Fuel Press	0x758	Fuel Pressure	PSI
10	EFI AFR Left	0x759	Left Side Air/Fuel Ratio	AFR
11	EFI AFR Right	0x75A	Right Side Air/Fuel Ratio	AFR
12	EFI AFR Average	0x75B	Average Air/Fuel Ratio	AFR
13	EFI AFR Target	0x75C	Target Air/Fuel Ratio	AFR
14	EFI Injector DC	0x75D	Injector Duty Cycle	%
15	EFI Injector PW	0x75E	Injector Pulse Width	ms
16	EFI Ign Timing	0x75F	Ignition Timing	DBTDC
17	EFI Voltage	0x760	Supply Voltage	V
18	EFI Fuel Flow	0x761	Fuel Flow	lbs/hr
19	EFI Baro Press	0x762	Barometer	kPa
20	EFI Knock Retard	0x763	Knock Retard	Deg
21	EFI Time On	0x764	Time Since Power On	Sec
22	EFI Closed Loop	0x765	Closed Loop Status	on/off
23	EFI CL Comp	0x766	Closed Loop Compensation	%
24	EFI Pedal Pos	0x767	Pedal Position	%
25	EFI Rev Limit	0x768	Main Rev Limit	RPM
26	EFI Boost Gear	0x769	Boost Gear	Gear
27	EFI Boost Speed	0x76A	Boost Speed	MPH
28	EFI Boost Stage	0x76B	Boost Stage	
29	EFI Boost Target	0x76C	Boost Target	PSI
30	EFI Boost Time	0x76D	Boost Time	sec
31	EFI Boost DC	0x76E	Boost Duty Cycle	%
32	EFI Boost Press	0x76F	Boost Pressure	PSI
33	EFI N20 Stage 1	0X770	Nitrous Stage 1 %	%
34	EFI N20 Stage 2	0X771	Nitrous Stage 2 %	%
35	EFI N20 Stage 3	0X772	Nitrous Stage 3 %	%
36	EFI N20 Stage 4	0X773	Nitrous Stage 4 %	%
37	EFI Meth Inj %	0X774	Water Methanol Injection %	%
38	EFI Line Press	0X775	Line Pressure	%
39	EFI Line Temp	0X776	Line Temp	DegF
40	EFI Clutch RPM	0X777	Input Shaft Speed	RPM
41	EFI Input #1	0X778	Input #1	
42	EFI Input #2	0X779	Input #2	
43	EFI Input #3	0x77A	Input #3	
44	EFI Input #4	0x77B	Input #4	
45	EFI Input #5	0x77C	Input #5	
46	EFI Output #1	0x77D	Output #1	
47	EFI Output #2	0x77E	Output #2	
48	EFI Output #3	0x77F	Output #3	
49	EFI Output #4		Output #4	
50	EFI Output #5		Output #5	

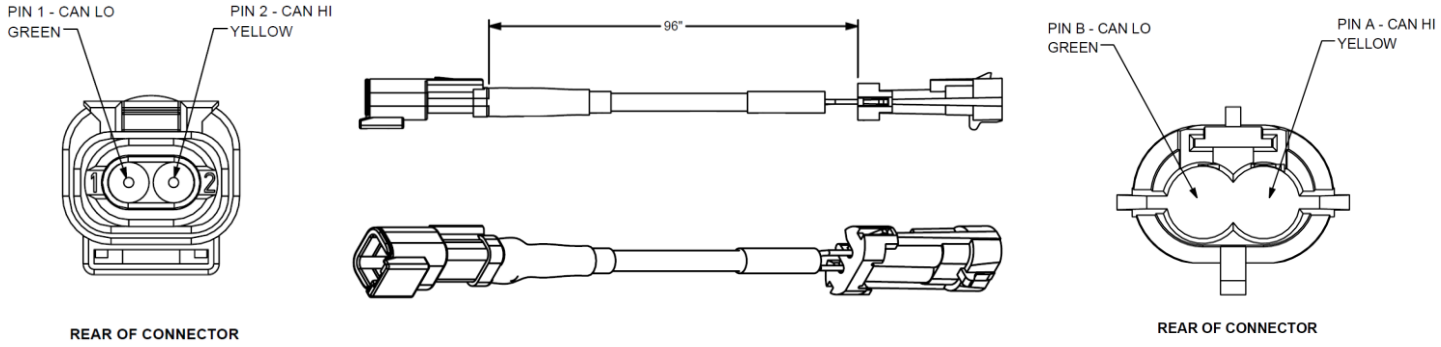
Harness Installation:

This adapter harness has been designed to plug in to the 2-pin Delphi connector, as found on some Holley EFI main engine harnesses. The 2-pin Delphi is also used on EFI CAN connector kit, Holley P/N 558-412, which plugs into the J3 connector on Dominator ECUs.

NOTE: If you plan to install on a newer main harness that has a 4-pin Molex connector for the CAN, you will need part number 280-CA-EFIHOLMX.

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 adapter harness into this connector. Route the wires from the adapter harness to the ECU or ECUs CAN cables. Avoid mounting near heat sources and high voltage ignition wires. Two additional pins are provided if you wish to shorten the adapter harness.

YELLOW WIRE - CAN HIGH
GREEN WIRE - CAN LOW



ECU Connection and Setup:

You MUST have the “V2” or higher software and firmware in your Holley Dominator/HP ECU. Go to the web address https://www.holley.com/support/resources/ and click on the “Fuel Injection” tab. Locate and download the highest software/firmware for the Holley ECU you have. Follow these and download other necessary files.

Starting with the “V2” software, the CAN outputs are configurable. To configure these, open the System ICF, select “Basic I/O”, and select the “CAN Bus” tab. “CAN Bus 1” is the CAN output on the J1A connector. “CAN Bus 2” is the CAN output on the J3 connector. “Racepak” should be selected on the connector you have connected to the adapter harness to.

Configuration File Update (IQ3S Street Dash):

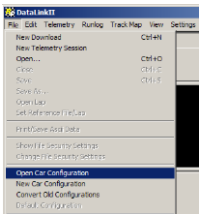
Before the channels from the ECU can be displayed on your IQ3S dash, you will need to enable the ECU interface on the IQ3S dash, sync the channels into the configuration file, and then program the selected channels to be displayed on the dash screen(s).

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.

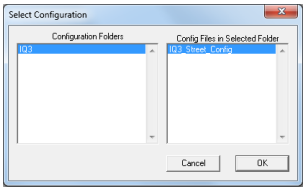
3. Start the DatalinkII program by double clicking on the DatalinkII Program icon located on the Windows desktop of PC (shown right).

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.

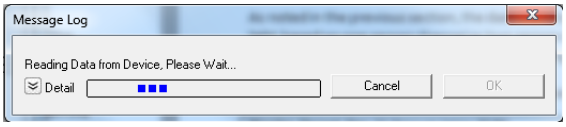
8. Once the IQ3_Street_Config is selected, select the OK button.

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***.

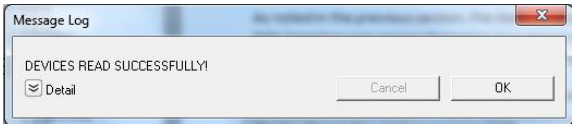
11. A dialog box (shown right) may appear asking if you wish to make this configuration the default configuration file. If this is the only Racepak system you will be programming, select the top option to make it the default. If using this PC to program more than one Racepak system, select the second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

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.

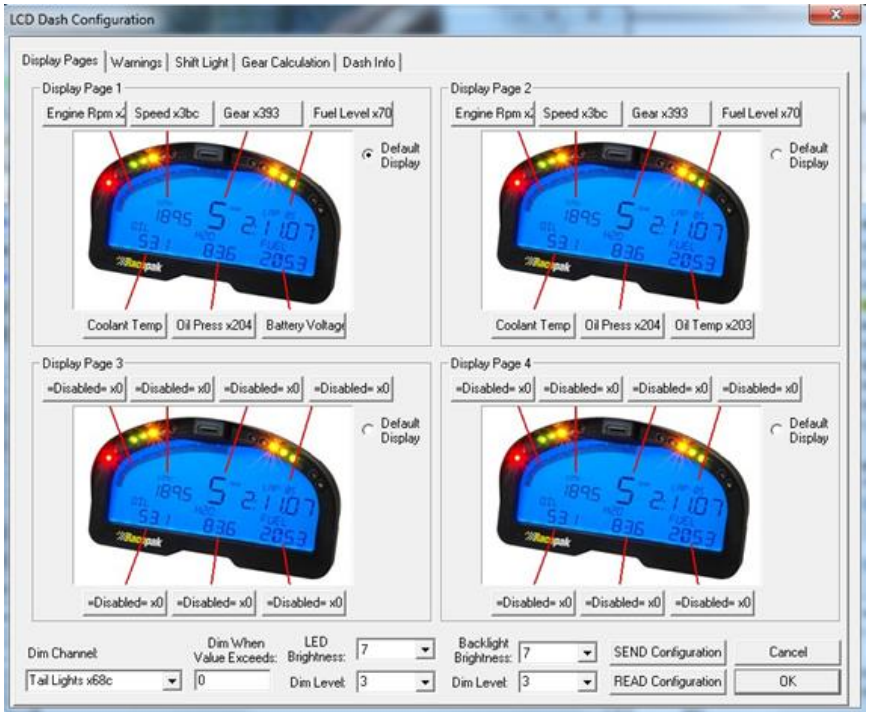
15. Right click on any of the channel boxes to modify/change their parameters.

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

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

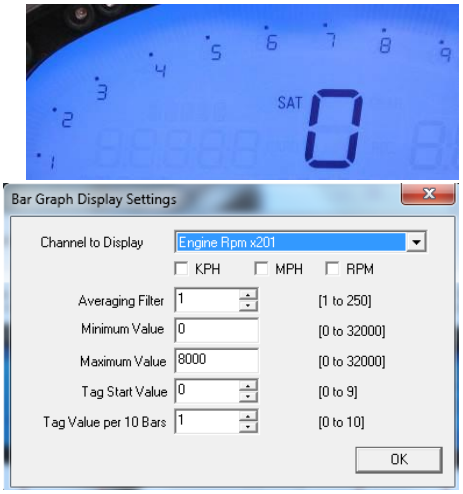
Programming the Display Pages:

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



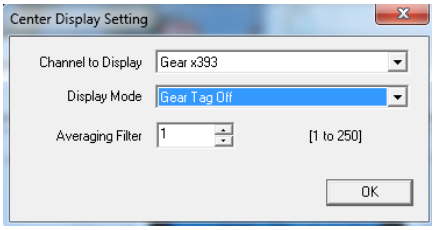
A view representing the current programming of all four display pages is obtained by selecting the Display Pages tab. Each input is programmed by selected the text box related to that input area, as indicated by the red line extending down to the dash, from each text box.

Bar Graph (Sweep Tach)



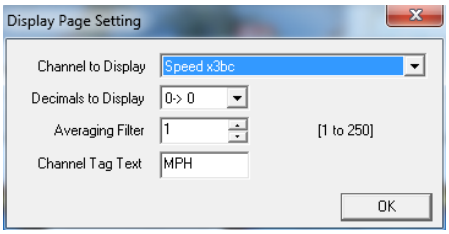
Function	Description
KPH MPH RPM	Selection defines channel name on dash
Channel to Display	Pull down arrow selects channel for bar graph data
Averaging Filter	Smooths displayed data - 10 is default
Minimum Value	Determines starting point for bar graph
Maximum Value	Determine ending point for bar graph
Tag Start Value	Determines start value for bar graph
Tag Value per 10 Bars	Determines value for each 10 bar segment. **There are a total of 8 - 10 bar segments for 80 total bars**. Channel tag value **must** 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, and then define the remaining values for Decimals to Display, etc.

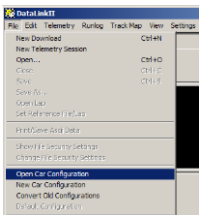
Once the page is programmed as desired, select the SEND Configuration to send any changes to the IQ3S Street Dash. The dash should now represent the programmed parameters.

Configuration File Update (Racepak Universal CAN Module):

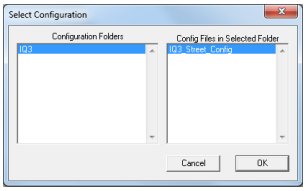
Before the channels from the ECU can be displayed on your IQ3S dash, you will need enable the ECU interface on the IQ3S dash, sync the channels into the configuration file, and then program the selected channels to be displayed on the dash screen(s).

1. Connect PC to 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).

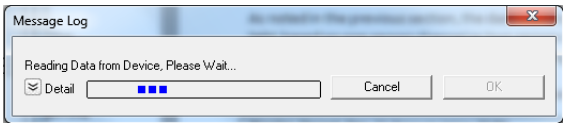


5. A dialog box will be displayed with a left and right pane.
6. The list on the left-hand side of the **Select Configuration** dialog box will display all of the file folders in the RacePakData subdirectory (C:\RacePakData) that contain valid configuration files with a .rcg file extension. Select the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

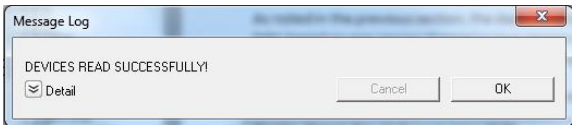


8. The configuration file for the Racepak device is now open.
9. Click ***Edit*** on the menu bar and select ***Read V-NET Config***.
10. A dialog box (shown right) may appear asking if you wish to make this configuration the default configuration file. If this is the only Racepak system you will be 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.

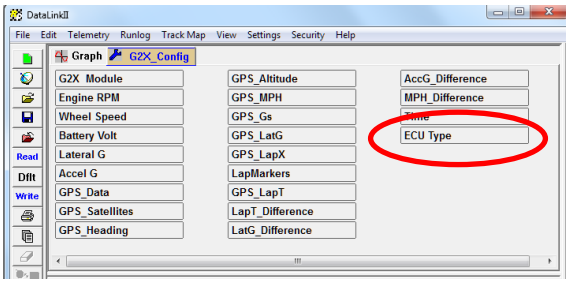
11. A message log will appear and should begin reading your system configuration.



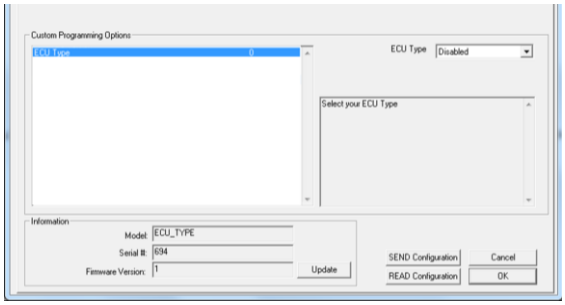
12. When finished the message log should display **DEVICES READ SUCCESSFULLY**!



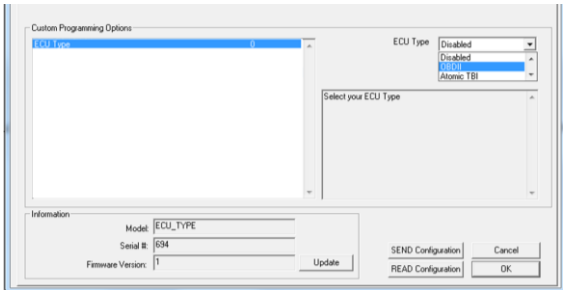
13. Click on the OK button.
14. If everything works properly, a new channel button named **ECU Type** will be added to the configuration file (shown right).
15. At this point, the particular ECU will have to be selected. You can do this by right clicking on the ECU Setup channel button.



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



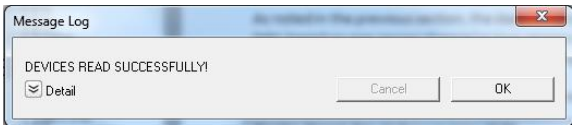
17. The drop down box to the right of the window can be clicked on, and you will be able to scroll through the list of available ECU interfaces.



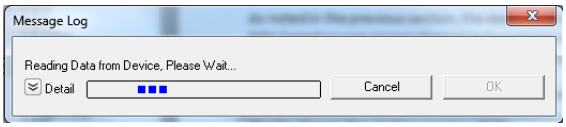
18. Select the ECU interface for the ECU you are connecting to.

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

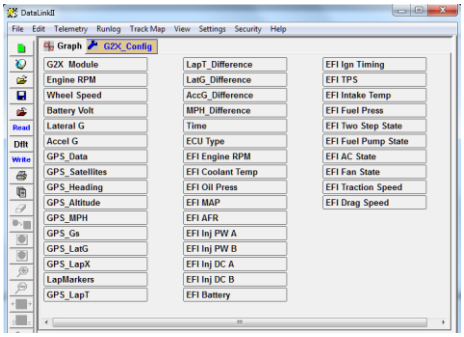
20. When finished, the message log should display **DEVICES READ SUCCESSFULLY**!



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



22. Channels boxes should now appear for each of the ECU channels. If the new channels are not present, select Read button on toolbar.



23. Final step is to save the updated configuration file. To do this, select File from the menu bar and click on Save. All programming is now complete. Turn power to the system off and then back on before its next use.

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.

866-464-6553

199R11974
Date: 11-19-19