

Owner's Manual

with Installation Instructions

banks *iQ Flash*

1996 & Later Vehicles with OBDII Diagnostics

THIS MANUAL IS FOR USE WITH KITS 61195, 61196, 61201, 61202

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Introduction

WELCOME TO THE WORLD OF Banks iQ

Congratulations on your Banks iQ purchase. You're about to discover that Banks iQ is designed to help you get the most out of your entire driving experience. Besides being fun and easy-to-use, Banks iQ's graphic, intuitive design makes each screen and feature a breeze to navigate. Use this manual to get you started. As Banks iQ develops, we will be updating this manual both in print and online at www.bankspower.com/banksiq.

With your Banks iQ, you now have the most sophisticated and user-friendly way to interact with your vehicle. Choose, select and change gauges in the display, change on- screen safety alerts—all on-the-fly and at the touch of a virtual button.

Ready to see the results of your vehicles performance? Banks iQ clocks your 0-60 mph, 1/8-mile and 1/4-mile performance runs. Performance runs are automatically stored for later retrieval with a time-and-date stamp. With Banks iQ, you can also scan and clear OBD II diagnostic codes. It gives you virtually endless functionality and fits in a mount on your windshield.

Viewing your vehicle's performance is just the beginning. With Banks iQ, you also have access to a host of Productivity tools, including Wordpad, a calculator and other applications

designed to work with your Microsoft® Office documents. View PDF files and PowerPoint presentations all on the go. There are also a variety of Entertainment functions, including music and video players, an e-book reader, and more. You can even download and play compatible games.

Don't forget, we're always working on expansions, upgrades, and new applications that will make your Banks iQ do even more. So be sure to register at www.bankspower.com/banksiq to receive important e-mail alerts regarding updates and upgrades for your Banks iQ device. Or call us with questions at **1-800-GET POWER.**

iQ Box Contents

| Item Description | Qty |
|------------------------|-----|
| Banks iQ | 1 |
| Banks Bridge Module | 1 |
| Cable (Mini B to USB) | 1 |
| Banks iQ Mounting Clip | 1 |
| Windshield Mount | 1 |
| Instruction Manual | 1 |
| Quick-Start Sheet | 1 |
| AC Outlet Wall Charger | 1 |
| Cable Ties | 3 |

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The BUYER is solely responsible for all warranty issues from the automotive manufacturer.

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- (c) finishes;
- (d) installations or defects resulting from installation;
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SAFETY INFORMATION

DO NOT USE Banks iQ NEAR WATER OR IN AN ELECTRICAL STORM AS THIS COULD LEAD TO AN ELECTRICAL SHOCK.

DO NOT USE Banks iQ NEAR A NATURAL GAS LEAK.

DO NOT DISPOSE OF THE RECHARGEABLE BATTERY IN A FIRE AS IT COULD EXPLODE.



The symbol of the crossed out trash bin indicates that this product (electrical, electronic equipment, and mercury-containing button cell battery) should not be placed in municipal waste. Check local regulations for disposal of electronic products.

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Section 1

SAFETY PRECAUTIONS

Always observe safety precautions!

Gale Banks Engineering urges you to always follow safety precautions. These pages include important information intended to prevent personal injury to yourself and/or others, and property damage.

Always be sure you carefully read and understand each precaution before moving on to the rest of the manual.

WARNING

AC Adapter Precautions.

Use only the AC adapter that comes with Banks iQ.

Using another type of AC adapter or car adapter creates the risk of battery overheating, combustion, leaking, or explosion.

HANDLING PRECAUTIONS

- Never try to disassemble or modify Banks iQ in any way.
- Never try to change the Banks iQ battery.
- Do not wipe with a wet cloth.

Do not touch a leaking battery with your bare hands.

Battery fluid can get into your eyes and cause impaired vision or blindness. Never rub your eyes, and immediately flush them thoroughly with water. Next, consult your physician. If battery fluid gets into your skin or clothing, immediately rinse the affected area with clear water.

Banks iQ contains combustible and metal parts, so water and foreign substances can cause malfunction and create the risk of overheating due to wiring insulation failure, short circuiting, smoke, fire, combustion, and electric shock.

OUTDOOR PRECAUTIONS

When outdoors, avoid using Banks iQ anywhere it might get wet with rainwater or other moisture, and/or in dusty conditions. Banks iQ is not water resistant or dust resistant. Water and dust create the risk of fire and smoke, combustion, electric shock, resulting in damage and malfunction.

Never touch Banks iQ or its electronic accessories with wet

hands. This will create the risk of electric shock, short circuiting or insulation failure, fire, smoke and combustion. **Also, never allow the AC adapter or Bridge plug to become wet.**

Always stand in a safe place while using Banks iQ outdoors. Use of Banks iQ while walking can result in accident and/or personal injury.

Do not share a power source with other devices. Using an extension cord to plug in several electric devices can cause the rated current level to be exceeded, resulting in overheating of cord or outlet, fire, and other damage.


Keep micro-SD cards out of the reach of small children as they may be swallowed. If you think this might have happened, Call **911** or consult your local emergency services (police, fire, ambulance) immediately.

Do not touch Banks iQ or its plug or USB cable if there is lightning in your area.

Lightning strikes create the risk of electric shock.

IN-VEHICLE PRECAUTIONS

Use this unit in 12V/24V DC negative ground vehicles only.

 **WARNING: Below 32° F (0°C) or above 140° F (60°C), the Banks iQ may be susceptible to damage as a result of extended direct exposure to sunlight, heat, or extreme cold. It is highly recommended that the Banks iQ be removed from its mounting location if the vehicle will be subjected to these conditions for an extended period of time. Gale Banks Engineering is not responsible for damage to Banks iQ resulting from exposure conditions.**

Always drive in accordance with traffic rules and regulations. Failure to do so may result in traffic accident and injury to yourself and/or others.

Never take your eyes off the road to adjust Banks iQ settings or change screens while driving vehicle. Doing so can result in a traffic accident. Always stop your vehicle in a safe place before operating the unit.

Only look briefly at Banks iQ screen images while operating your vehicle. Doing otherwise can take your mind off the road and create the risk of a traffic accident and injury to yourself and/or others.

Do not set volume level too high. Blocking out the sound of other vehicles and traffic can create the risk of a traffic accident.

Never use headphones while operating a motor vehicle. This can create the risk of a traffic accident and may be considered illegal.

Never install Banks iQ in a location where it will interfere with operation of the motor vehicle, block the driver's view, or where it may endanger passengers. Installing the unit near the shift lever, brake pedals or other vehicle controls, or block front, side or rear vision, can create the risk of a traffic accident and cause injury to yourself and/or others.

Never install Banks iQ where it can interfere with airbag operation. Do not install in a location where deployment of the airbag cause Banks iQ or its parts to become projectiles. Also, be sure to check installation precautions for your exact vehicle model and year.

Make sure to install the Banks iQ mount so it does not come off or fall down. Clean off any dirt and wax from the installation location, and install securely. Periodically check the iQ mount and installation condition of the cradle.

PRECAUTIONS FOR USE IN VEHICLE

Use only the items that come with this unit and the Banks products it was designed to interface with. Use of non-specified items can damage the vehicle interior or result in a poor fit, creating the risk of accident, malfunction, or fire.

Install Banks iQ where it is out of the reach of small children. Failure to do so can cause an injury to the child or others due to mishandling of Banks iQ.

Do not install Banks iQ in a location where it will be splashed by water or subjected to large amounts of humidity, dust, or oil smoke.

This can increase the risk of smoke, combustion, electric shock, and accident.

PRECAUTIONS DURING USE

Liquid Crystal Display (LCD)

- The LCD scratches easily, so be sure to use only your finger or the stylus to perform touch operations.
- Do not use commercially available LCD protection film. This can result in poor touch panel operation.
- To protect the LCD, avoid exposure to direct sunlight while not in use. Using a car sunshade or other means to block the sun is recommended.
- Excessively low temperatures may cause failure of video images to appear or respond slowly. It also can cause strange video image movement and deterioration.

- Do not clean Banks iQ while power is turned on. When wiping the LCD, use a dry soft, micro-fiber cleaning cloth.

- Do not use a paper towel to clean the screen.

- When transporting Banks iQ, make sure that the LCD screen does not come in contact with any foreign objects.

CARRYING THE UNIT

- Never pick up the unit while holding the LCD.

- Never put excessive pressure on Banks iQ by sitting with it in your pocket, putting a heavy object on it, etc.

- Turn off power and put Banks iQ into a bag or other holder when carrying it.

NOTE: While you can store Banks iQ in 'Sleep Mode', switching the device off will lengthen the battery's charge.

When Not in Use. Store Banks iQ in a place where it is not subject to extremely high or low temperatures. Room temperature is best.

Precautions during Use Inside a Motor Vehicle. Always be sure to use Banks iQ in accordance with local rules and regulations.

-END, SECTION 1-

Section 2

BANKS IQ START UP

Banks iQ is shipped from the factory with a fully rechargeable battery. After Mounting and Connecting, see **Section 3**, simply plug the supplied Banks iQ USB interface cable into the device's power connection. See **Figure 2**. When used in your vehicle, Banks iQ will operate on the vehicle's power source. When out of the vehicle, Banks iQ can be charged with the supplied AC-outlet wall charger. Banks iQ can also be charged by plugging the supplied USB cable into a compatible computer connector. Upon being fully charged, Banks iQ will display a Blue light.

Press and hold the Power button to turn Banks iQ on. Within a few minutes, the Banks iQ will adjust for time, date and time zone using GPS information. It even adjusts automatically for daylight savings time.

NOTE: When Banks iQ is powered off, date and time information is lost until the device has been restarted and locates a GPS signal.

Use the on-screen buttons to access and use all enabled Banks iQ's functions.

Receive Update Notices

Banks iQ is constantly evolving. We invite you to register at www.bankspower.com/banksiq to receive important emails regarding updates and upgrades for your Banks iQ device.

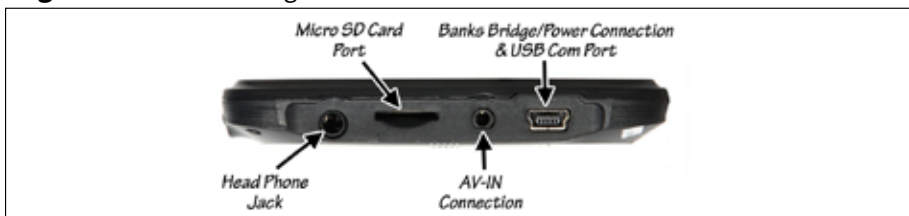
For more detail instruction to update your Banks iQ please go to banks website at www.bankspower.com/iqupdate

-END, SECTION 2-

Figure 1 Banks iQ



Figure 2 Left Side Edge



Section 3

MOUNTING AND CONNECTING THE BANKS iQ

- 1.** Locate the Window Mount Assembly in your kit.
- 2.** Assemble the Banks iQ mounting plate to the window mount by inserting and sliding the window mount tabs into the mounting plate grooves. Hand tighten the nut behind the mounting plate to hold the mounting plate in place.
- 3.** Attach the window mount to your Banks iQ. See **Figure 3**. Align and place the two (2) lower tabs on the window mount to the corresponding slots on the bottom of the iQ first then snap the top of the iQ into place.
- 4.** Find a suitable place on the windshield for ease of access and viewing of Banks iQ. Use location shown in **Figure 4** as a reference for mounting Banks iQ in your vehicle. Loosen the knob and move the swivel suction plate to achieve desired viewing angle of the Banks iQ screen. Do a test fit and note the angle necessary to achieve the correct viewing angle.
- 5.** Make sure the suction cup and the mounting area on the windshield are clean and dry. With the suction lever in the up position, ensure the suction cup is flat against the windshield, and then push the suction lever down to secure in place.

Connecting Banks iQ

- 6.** Locate the OBD II connection port in your vehicle. The OBD II connection port is located under the dash panel and can be located on either side of the steering wheel.
- 7.** Locate the Banks Com-link communication Bridge and connect the Banks OBD II connector to the vehicles OBD II connector. See **Figure 5**.

NOTE: For some vehicle models the OBD II connection port may need to be disconnected from its mounting location. Unclip or remove factory screws/bolts to relocate the OBD II connection port and allow the Banks OBD II connector to plug into the vehicles OBD II connector without bending or putting stress on the iQ Bridge Module harness. Secure the OBD II connection port under the dash.

- 8.** Route the Banks iQ USB interface cable on the Com-link to reach the Banks iQ.

NOTE: You may need to loosen or remove dash panel or covers to install the interface cable between dash crevice or behind dash panels.

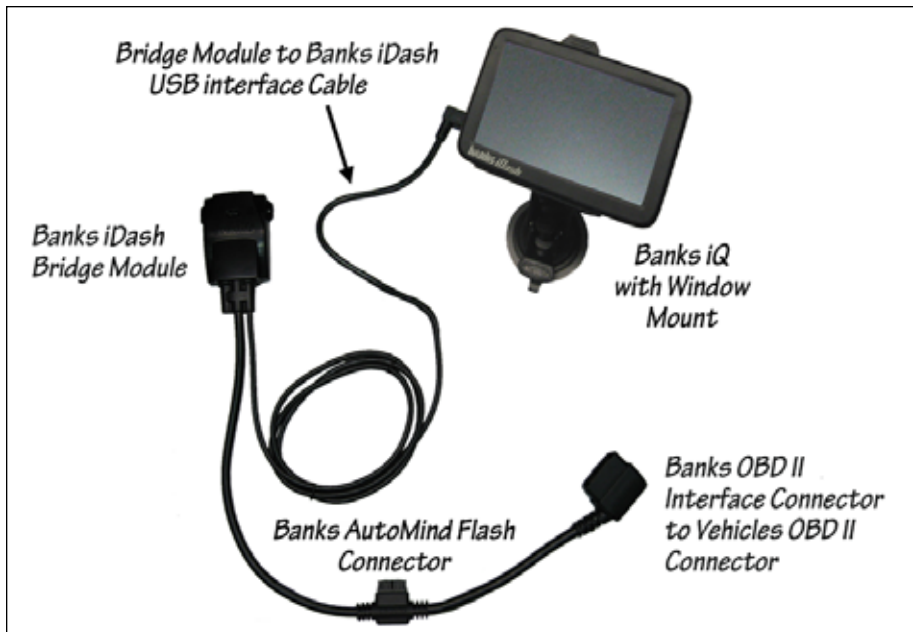
Figure 3 *Attaching Banks iQ to window mount*



Figure 4 *Suggested Mounting location for Banks iQ, Chevy LMM Shown*



Figure 5 Banks iQ System



WARNING: THE CHARGING CABLE CONNECTED TO THE BANKS iQ IS DESIGNED TO SUPPLY A CONSTANT LOW-VOLTAGE POWER SOURCE (+5VDC) TO THE BANKS iQ AND IS "LIVE" AS LONG AS THE SYSTEM'S OBD II INTERFACE CABLE OR BANKS WIRING HARNESS IS COMPLETELY INSTALLED AND THE USB CABLE CONNECTOR IS PLUGGED INTO BANKS iQ. ALTHOUGH THIS CHARGING CABLE CIRCUITRY IS FUSE-PROTECTED, THE USER IS EXPECTED TO TAKE APPROPRIATE MEASURES TO PREVENT SMALL CHILDREN AND/OR PETS FROM CONTACT WITH ANY PART OF THIS SYSTEM.

9. Secure Banks iQ Bridge Module under the dash to any dash frame support using the supplied cable ties. Use the cable tie support loops on the side of the Bridge Module to securely fasten it under the dash.

10. Route all wiring away from any pedals or other moving components. Using the cable ties supplied, secure the wiring under the dash.

11. With the bridge module connected, turn the key to the 'ON' position and wait for 30 seconds.

CAUTION: The USB interface cable that connects the iQ to the Bridge should be handled with care. Be careful not to strain/pull the cable while connected to the iQ.

12. Plug the USB interface cable into the iQ. The iQ will wake up and the initial boot screen will display for approximately 10 seconds, followed by on screen instructions for completing the initialization process.

NOTE: The connection process should be complete within about 10 second.

-END, SECTION 3-

Section 4

SOFTWARE INTRODUCTION

Figure 6 Start up



NOTE: Remember, you can upgrade your Banks iQ as new software is developed and learn more about other Banks iQ applications anytime. Register at www.bankspower.com/banksiq to receive important e-mail alerts regarding updates and upgrades for your Banks iQ device. Or call us with questions at 1-800-GET-POWER.

Once the iQ is properly connected to the vehicle (**sections 2 & 3**) it will wake up and be ready for use when the vehicle key is turned on. If you are using the iQ outside of your vehicle, you may either wake up or power on the iQ by pressing the power button (see **Figure 1**). After initial start-up, Banks iQ will either display the 'Mode Select' menu or a previously selected mode. To return to the 'Mode Select' menu, press the iQ home icon in the lower left corner of the screen. See **Figure 7, 8 & 9**. To navigate through the menu press the left or the right arrows. The Banks iQ will display the options available for your vehicle.

After a selection has been made, the Banks iQ will start in the selected Mode Screen. To access other applications, press the 'Banks iQ Home' icon at any time in the lower left hand side to return to the Mode Select Menu. See **Figure 9**.

Sleep Mode

When Banks iQ is connected to your vehicle it will go into 'Sleep Mode' whenever the vehicle is turned off.

For some vehicle models, If in the Navigation Mode, the iQ may require to be put into sleep mode manually.

There is no need to exit the Banks iQ application or to turn the iQ off. Banks iQ will automatically 'Wake Up' when the vehicle ignition is turned on or the 'Power' button is pressed.

When Banks iQ is disconnected from the vehicle or power supply, the iQ will go into 'Sleep Mode' if no activity is detected within an allotted time. The time for the iQ to go into 'Sleep Mode' can be changed by pressing on the 'Battery Management' button in the 'Adjustments' menu. Refer to **Section 16** to change settings.

Figure 7



Figure 8

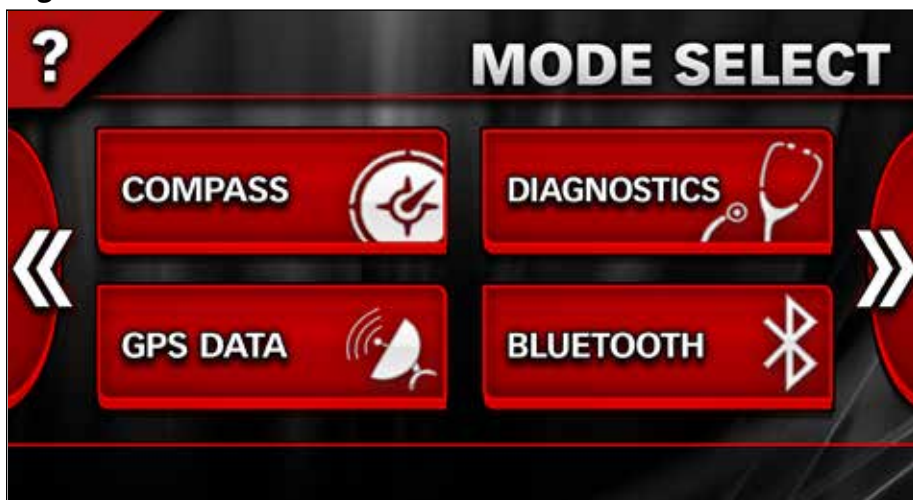


Figure 9



The iQ may be turned off or put into sleep mode manually at any time by pressing and holding the 'Power' button. Then select the 'Sleep', 'Off', 'Return' or 'Restart' button on the screen.

NOTE: When the iQ senses that the vehicle is in motion some features will be inaccessible. The feature icons will be grayed out during that time.

-END, SECTION 4-

Section 5

INFORMATION MODE

Press the 'Information' button in the Mode SELECT screen to access the Information monitoring screen.

Information Mode Screens display the following: five user-selectable Gauges and Status Indicator. See **Figure 10**.

Press the Wrench icon to see the 'Adjustments' menu.

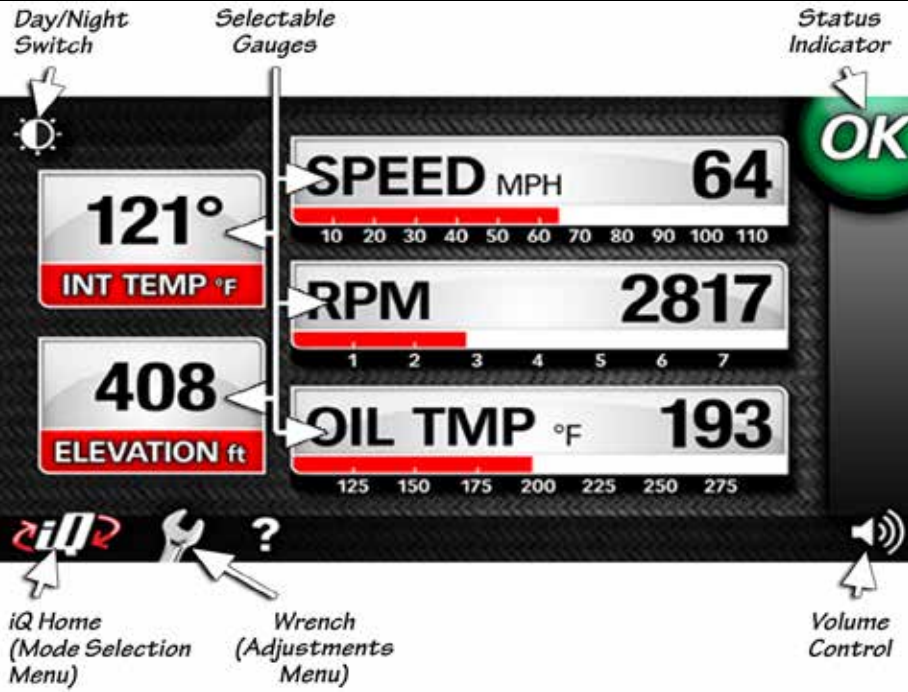
Select any five gauges that you want to show on your display. To change a gauge, simply press on it and you will be taken to the 'Gauge Placement' screen featuring the gauge you selected. Refer to **Section 17** for instruction on how to change each gauge. The gauges can also be changed to display in U.S. or metric units. Refer to **Section 16** for instruction on how to change units.

The Status Indicator in the upper right-hand corner of the screen displays the communication status between the Banks iQ and your vehicle. In the event that an on-screen alert malfunction is triggered, a status alert will appear in the upper right-hand corner of the screen. See **Figure 38**. Press on the status alert for more information about the alert condition.

On the lower left hand corner of the screen is the 'Banks iQ Home' icon, which will direct you back to the 'Mode Select' menu, and the 'Wrench' icon that will direct you to the 'Adjustments' menu. For more description of the 'Adjustments' menu, please see **Section 15**.

-END, SECTION 5-

Figure 10 Information Mode - Digital Gauge Style



Section 6

ECONOMY MODE

The Economy Mode will provide you with the most up-to-date status on your vehicles fuel economy.

From the Mode SELECT menu, press on the 'Economy' button. When first initiating the Economy Mode a message will be displayed to set your 'Fuel Cost'.

"In order to accurately calculate certain parameters, you must enter the current cost of fuel & tank size."

Press 'Yes' to set the fuel cost and the tank capacity of your vehicle or press 'No' to continue.

NOTE: Some gauges will be unavailable if fuel cost is not set.

Setting Fuel Cost & Tank Capacity

If you press 'Yes' the iQ will take you to the 'Options' menu. Press on the 'Fuel Cost' tab to set the fuel cost. In the 'Fuel Cost' screen you will be able to enter the dollar amount that was paid per gallon/liter. See **Figure 11**. You may choose to enter the fraction of a cent cost per gallon/liter or press the $\frac{\text{ }}{10}$ in the upper right hand corner. Once the dollar amount has been entered, press 'Done' to return to the 'Options' menu.

In order to maintain the accuracy of cost calculations, it is important to enter the fuel cost every time you refill the tank. Press on the 'wrench' icon to open the 'Options' menu and then press the 'Fuel Cost' tab or press the '\$' icon in the lower part of the Economy Mode screen to enter the Fuel Cost.

Set the 'Tank Capacity' for your vehicle. Press the 'Tank Capacity' tab in the 'Options' menu. In the Tank Capacity screen enter the Vehicles fuel tank capacity. See **Figure 12**. Refer to your vehicles Owner's Manual to enter the correct Tank Capacity to the nearest whole gallon or liter. Once the Tank Capacity has been entered, press 'Done' to return to the 'Options' menu. Press the iQ icon to return to the Economy Mode.

NOTE: For vehicles with more than one tank, enter the main tank capacity only. Do not add the reserve tank capacity.

Engine Displacement

In some cases, Fuel Economy may not display correctly if the engine displacement is not properly entered. In the 'Adjustment' Menu, Select the

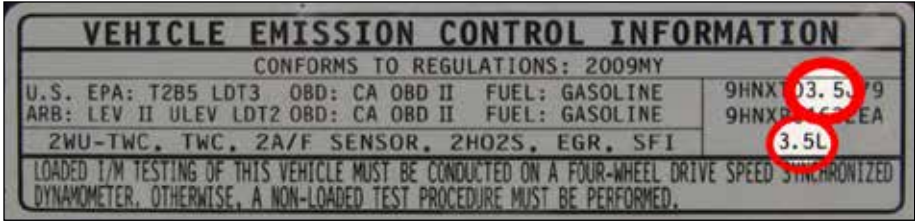
Figure 11



Figure 12



Figure 13 Honda Motor CO. Emission Label Shown



‘Engine Displacement’ screen to enter an accurate displacement for your engine. Engine displacement can be found on the Under Hood Emissions Label. See **Figure 13**.

Fuel Offset

Each vehicle may have some variation in the calculated fuel usage. A fine tuning adjustment may be applied using the Fuel Offset utility. This value may be determined by comparing actual fuel used during a drive cycle to the value that the iQ reports for fuel used. Enter the ‘Fuel Offset’ screen and tap on the ‘ACTUAL Fuel Used’ box on the left side of the screen. See **Figure 14**. Use the keypad on the right side of the screen to input a value. Press ‘DONE’ when your

entry is complete. Alternatively, you may calculate a percentage offset yourself and input the value in the percentage offset box on the right side of the screen. Tap the ‘Percentage Offset’ box on the right side and use the keypad to enter a value.

Gauges

There are five (5) gauges displayed in the Economy Mode. See **Figure 15**. The three (3) to the left of the screen can be changed to display the data from a list of available parameters. The two (2) on the right, Instant MPG and Average MPG, can be changed only to increase or decrease the scale display. Refer to ‘Gauge Placement’ in **selection 17** to change the Gauges displayed.

Figure 14



Figure 15



Trip

The Trip feature will keep track of your vehicles Average Speed, Trip Distance, Trip Time, Engine On Time, Cost per Trip, Fuel Used, MPH, Instant MPG, & Average MPG. You can switch between two (2) Trip recordings, 'Trip A' and 'Trip B', by pressing the letter on the lower right corner of the Economy Mode screen. See **Figure 15**. You can view all this information by pressing on the wrench icon in the lower left hand corner of your screen. In the 'Options' menu press on the Trip information you wish to view. Once you have viewed the information, press the return icon to return to the Options menu or press the iQ icon to return to the Economy Mode.

Reset Trip Information

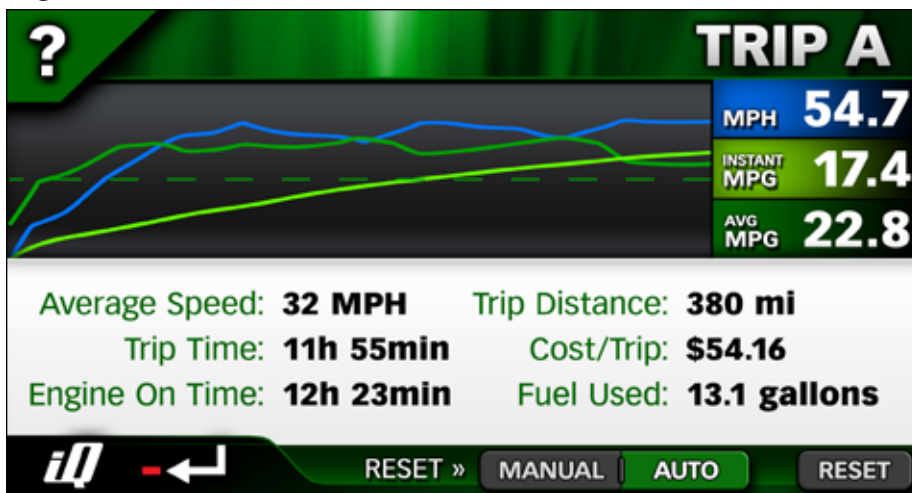
The Trip information data can be reset by pressing and holding the letter of the trip you wish to clear for 5 seconds on the lower right corner of the Economy

Mode screen. You may also reset the trip information by going to the trip data screen for each screen and press the 'Reset' button on the lower right corner. See **Figure 16**.

Trip A has the option to reset automatically. All the data captured will be reset to zero after the engine has been off for more than two (2) hours. To enable this option press on the wrench icon in the lower left hand side of the screen of the Economy Mode screen. In the 'Options' menu press on the 'Trip A' tab. In the lower part of the Trip A screen press 'Auto' to have the iQ automatically reset the trip information or press 'Manual' to manually reset the information. See **Figure 16**. Press the 'Return' icon to return to the 'Options' menu or press the 'iQ' icon to return to the Economy Mode.

-END, SECTION 6-

Figure 16



Section 7

PERFORMANCE MODE

Banks iQ performance testing allows the user to run a $\frac{1}{8}$ mile, $\frac{1}{4}$ mile, or a 0-60 MPH test run.

Setting up for Performance Testing

1. Press the 'Performance' button in the 'Mode Select' menu. The Performance Screen will appear. See **Figure 17**.
2. Banks iQ lets you change any of the gauges on view in the Performance display. Changing the displayed gauges does not affect the measurements actually being recorded during the test. If you would like to change these gauges, simply press the gauge you want to change and you will be taken to the Gauge Placement menu. See **Section 17**.
3. Select the performance test you want to run: '0-60 MPH', ' $\frac{1}{8}$ Mile', ' $\frac{1}{4}$ Mile'.
4. Press the 'Start Test' button. See **Figure 18**.

NOTE: To ensure accuracy, the vehicle must be completely stopped when pressing the 'Start Test' button. After pressing the 'Start Test' button, the Banks iQ will immediately arm itself

and wait for vehicle motion to begin recording.

5. The "Christmas Tree" Yellow Light will flash.

6. Test begins when Green Light flashes on and accelerator pedal is pushed.

NOTE: You can begin the test any time after the 'Start Test' button is pressed by pushing on accelerator pedal or making the wheels roll.

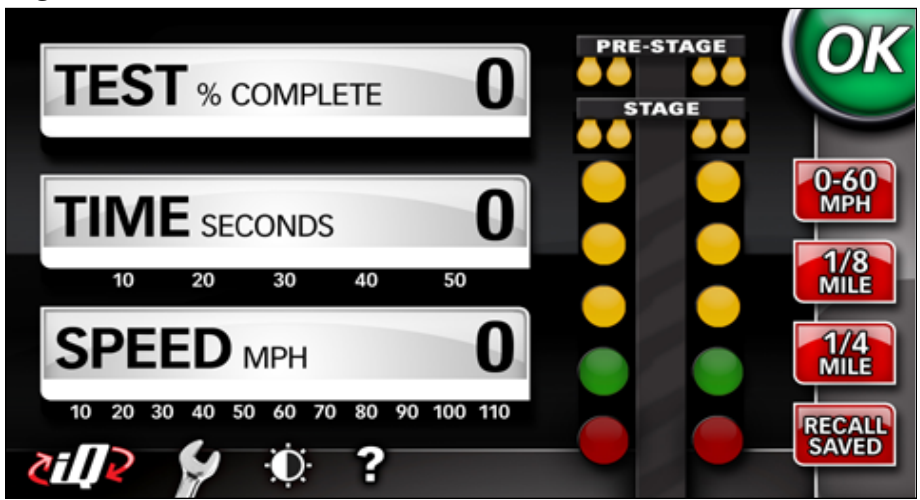
Recommended Performance Test Procedure:

- A. Foot firmly on brake, vehicle at rest, select drive gear.
- B. Select the desired 'Performance Test'.
- C. Press 'Start Test'. Wait for green light.
- D. Test begins once vehicle motion is detected.

Figure 18 Start Test Button



Figure 17



7. When the performance test is finished, Banks iQ immediately displays a results screen showing elapsed time/speed/distance measurements along with default gauge readings for the run. See **Figure 19**. Each completed Performance Test is saved for future analysis. Exit the result screen and return to the Performance Mode by pressing the 'X' in the upper right-hand corner.

Viewing Saved Performance Tests

8. To view a previously completed Performance Test touch the button labeled 'Recall Saved'.

9. Use the Up and Down arrow buttons to highlight the Performance Test you want to review.

NOTE: All tests are date and time stamped to conveniently help search for the desired Test run.

10. Touch the button labeled 'Review Test' to view in detail the results of the saved Performance Test.

Use the 'Left' and 'Right' arrow buttons to move the cursor one frame at a time in the displayed graph area. Moving between the frames will automatically update the displayed parameter values.

NOTE: Use of this feature will be suspended while the vehicle is in motion. Only when the Banks iQ senses that the vehicle's speed is zero can you review your saved tests.

Deleting Saved Performance Tests

11. To delete a previously saved Performance Test, highlight the saved test you wish to delete and Press the 'Delete' Button

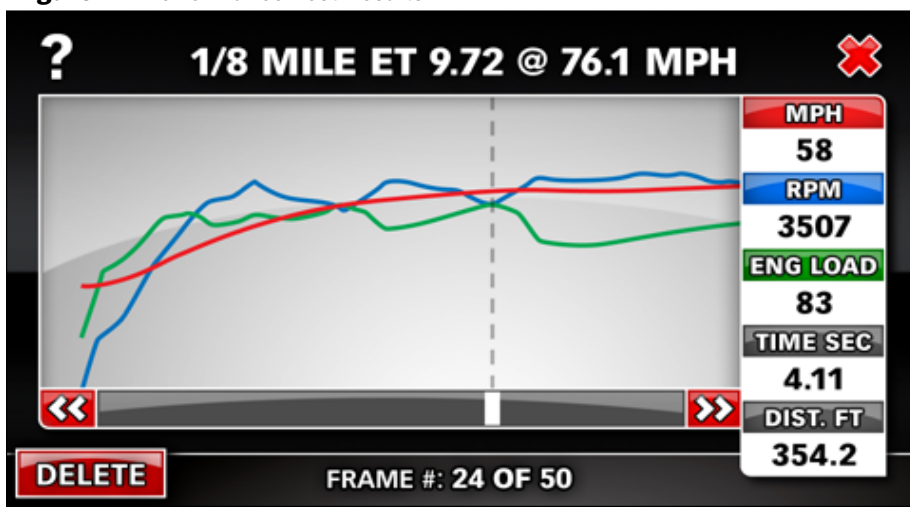
12. A pop up window labeled 'Confirm Delete' will ask you to confirm the deletion of the test.

13. Press the button labeled 'Yes' to confirm or 'No' to decline.

14. Press the Banks Home iQ icon to return to the 'Mode Select' menu.

-END, SECTION 7-

Figure 19 Performance Test Results



Section 8

DIAGNOSTICS MODE

Receive Diagnostics Update Notices

Banks iQ is constantly evolving and new diagnostics updates may be available. We invite you to register at www.bankspower.com/banksiq to receive important emails regarding updates and upgrades for your Banks iQ device.

Vehicle Diagnostics

Diagnostic Trouble Codes (DTC) are error codes that are generated when there is a problem with your vehicle. If your vehicle dashboard displays a check engine light, DTC(s) will be available to assist in diagnosing the problem. You can use the Banks iQ to run a vehicle system check and display these DTC(s). A code will be given along with a brief description of the problem, a full description of the code will display below the code list when the code is highlighted. You may call your vehicle dealer or reference your vehicle service manual for description and possible corrective action to fix the problem. Once the problem has been repaired you can clear the code to turn the check engine light off.

NOTE: Keep a written record of the DTC code(s) that display on your Banks iQ for future reference before clearing them.

Check for OBD II DTC(s)

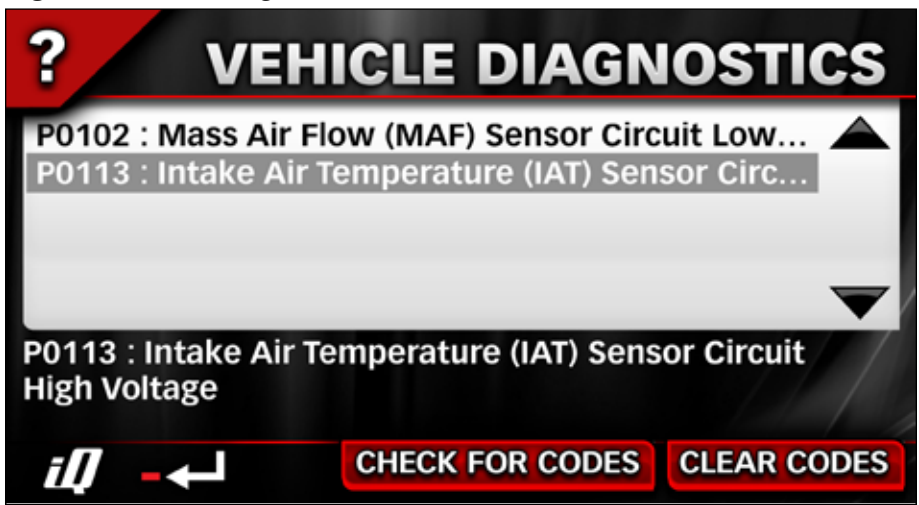
If any vehicle DTC(s) are present, troubleshoot/repair the cause. Once the cause is properly remedied, touch 'Clear Codes' and then 'Check for Codes' again to verify the problem is fixed (the OBD II code should not re-appear). You may need to complete a driving cycle for the code to not re-appear.

1. In the Mode Select menu press on the 'Diagnostics' button.

3. With the ignition in the on/run position or with the engine running, press on the 'Check for Codes' button. See **Figure 20**.

NOTE: On certain vehicles, the ignition key must be in the On/Run position, but the engine must NOT be running. If the engine is running, Banks iQ will display a pop-up message instructing you to confirm that the ignition key is in the ON position.

Figure 20 Vehicle Diagnostics Screen



NOTE: The Banks iQ will check for vehicle diagnostic codes and display either the code with a brief description or the message "No codes found". For a full description of the code, highlight the code and the description will appear below the code list box.

4. To return to the Diagnostics Mode screen, press the 'Banks iQ' icon. Press the 'Banks iQ Home' icon again to return to the Mode Select menu.

Clearing OBD II DTC(s)

5. After checking for and reviewing any diagnostic code, touch 'Clear Codes' to erase them from the vehicle's ECU. If multiple codes are present, they will all be cleared.

6. If diagnostic codes reoccur on your vehicle, you should investigate the underlying problem to correct it by calling your vehicle dealer or referring to your vehicle owner's manual.

-END, SECTION 8-

Section 9 PRODUCTIVITY MODE

DESKTOP

Start and work with any pre- installed application on your Banks iQ. Press an application to begin using it. See **Figure 21**.

Expand your Banks iQ system memory by installing a micro-SD card in the card slot (sold separately).

Open and read your Microsoft® Office documents. Work with the on-screen keyboard and calculator, watch videos, view pictures, listen to your favorite music, and much more.

NOTE: The Windows CE operating system comes standard in your Banks iQ and enables you to perform the productivity functions listed here. In addition, it enables Banks iQ to "talk" to and share information with other Banks products.

PRODUCTIVITY TOOLS

Banks iQ is like having a micro-computer with you whenever you drive. With its rechargeable on-board battery, you can

take Banks iQ everywhere you go, inside or outside your vehicle.

From the Mode SELECT menu, press on the 'Productivity' button.

Scroll to and/or press any button on the Productivity Screen to start and use the applications listed below.

Desktop

Access and work with applications using the Windows CE desktop screen.

Changing Desktop Background

Banks iQ comes with four pre-programmed desktop background themes. To access and change the background displayed on your Desktop, follow these steps.

1. Touch screen with stylus (supplied) and hold until menu appears.

2. Select 'Properties', then select 'Display Properties'.

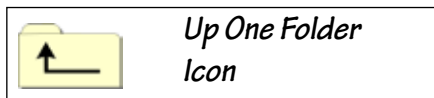
3. Click 'Browse'.

Figure 21



4. Click the 'Up One Folder' icon. See **Figure 22**.

Figure 22



5. Click 'Resident flash'.

6. Click 'Banks iQ common'

7. Click 'Wallpaper'.

8. Press the arrow in the 'Type' field in lower right screen. Select JPEG.

9. Select an image and it will appear in a preview window.

10. Repeat steps 3 through 9 to preview other desktop background options.

11. When you have found the background you want to use, select 'OK' or 'X' to exit the window and enact your change.

Loading and using your own Desktop Background

Customize your Banks iQ Desktop with

a BMP—Bitmap, Bitmap (4 color), GIF—Graphics Exchange Format or JPG—JPEG image file stored on your micro SD card (sold separately). Just follow these steps.

1. Connect your micro SD card to Banks iQ. See **Figure 2** for location of ports.

2. Click on 'My Device'.

3. Click on 'SDMMC' and locate the graphic file you want to use.

4. Touch and hold the file until menu appears. Select 'Copy'.

5. Locate the 'Return' arrow at the top center of your screen and click it to return to 'My Device'.

6. Click 'Resident flash.'

7. Touch and hold anywhere on the screen until the 'Options' menu appears. Select 'Paste'.

8. Your graphic is now loaded into Banks iQ internal storage. Follow steps 1 through 5 under "Changing Desktop Background" to retrieve your image file. Continue with steps 8 through 11 under "Changing Desktop Background" to use it as your background display.

WORDPAD

- Use the stylus and virtual keyboard to type and save notes.
- Open up Word documents, make and save changes.

CALCULATOR

Use the number pad to enter and perform mathematical calculations.

EXCEL VIEWER

View stored documents created in Excel.

PDF VIEWER

View documents stored as PDF files.

IMAGE VIEWER

- View and sort images stored on the device or micro SD card (sold separately).
- View images individually or as a slide show.
- Rotate, cut, crop, adjust the hue, change the brightness and resize your photos.
- Save your changes.

POWERPOINT VIEWER

View stored PowerPoint documents and presentations. Exit the Desktop by pressing the 'X' in the upper-right corner.

WORD VIEWER

View stored documents created in Microsoft word.

SYSTEM INFO

To view your System Information, press the 'System Info' button in the 'Productivity' menu. See **Figure 23**. Use this info to check the current Banks iQ version, System version, and how much memory storage is in the iQ. Press the 'Banks iQ' icon to go back to the 'Productivity' menu.

To exit all other Productivity applications, use the method provided by that application. Press on the 'Banks iQ Home' icon to return to Banks iQ functions. See **Figure 24**.

Figure 24

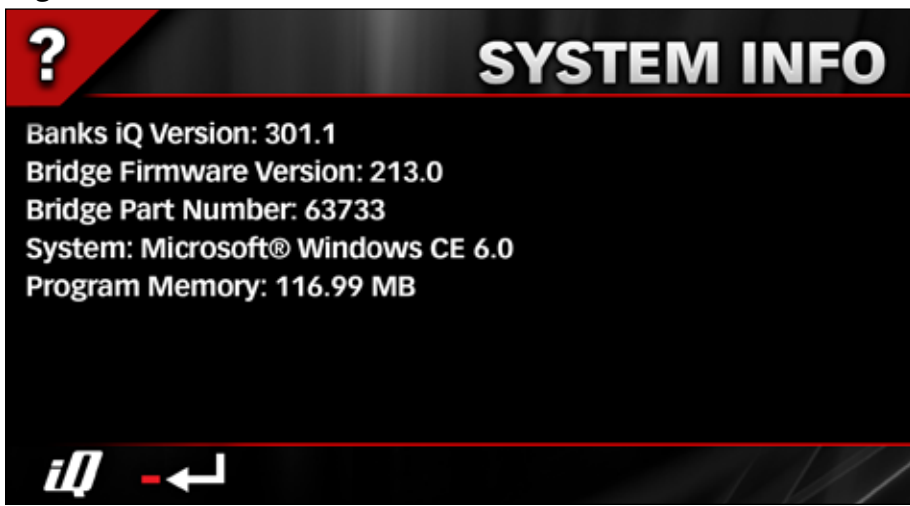


Banks iQ Icon

NOTE: Productivity Mode functions will be grayed out and inaccessible while the vehicle is in motion.

-END, SECTION 9-

Figure 23



Section 10

ENTERTAINMENT MODE

ENTERTAINMENT TOOLS

Banks iQ is an all-in-one multi-media entertainment center that you'll enjoy using when you are on-the-go, even if you've left your vehicle behind in a parking lot.

From the Mode Select menu, press on the 'Entertainment' button.

Scroll to and/or press any button on the Productivity Screen to start and use the applications listed below.

PHOTO ALBUM

- Supports JPEG, BMP, PND format
- Implement operations, such as slide show, view, rotate, delete.
- Clockwise rotate and counter-clockwise rotate photos.
- Delete photos (deleted photos can't revert).

MUSIC PLAYER

Playback and listen to stored music files through the Banks iQ speaker or through headphones connected to the headphone jack. You can also listen to music through your car or personal/home stereo by connecting a stereo audio cable (sold separately) to the headphone jack.

MOVIE PLAYER

- Supports MPEG-1, MP4, AVI, WMV, ASF, 3GP, and DivX format files
- Basic playback controls such as play, pause, stop, next and previous
- Switch two functions between full screen and standard screen freely
- Play list support

Playback and enjoy video files stored in a variety of formats. Playback and listen to stored movie files through the Banks iQ speaker or through headphones connected to the headphone jack. You can also listen to the video soundtrack by itself through your car or personal/home stereo by connecting a stereo audio cable (sold separately) to the headphone jack.

EBOOK READER

- Use the scroll tool to view and read stored ebooks.
- View text, books or documents saved in TXT format.
- Supports ANSI, Unicode and UTF-8 coding formats.

GAMES

- Choose from three pre-installed games FreeCell, Connect or Solitaire.
- Launch compatible WindowsCE game formats (from desktop).

To exit an Entertainment application, use the method provided by that application. Press on the 'Banks iQ Home' icon to return to Banks iQ functions. See **Figure 24**.

NOTE: Entertainment Mode functions will be grayed out and inaccessible while the vehicle is in motion.

-END, SECTION 10-

Section 11

BLUETOOTH MODE (OPTIONAL)

The Banks iQ is equipped with Bluetooth and can be used to connect to a Bluetooth capable phone for hands free operation. It can also be used to stream audio from the phone to the iQ. The audio quality can be enhanced by connecting the audio output signal from the iQ to an auxiliary audio input on your vehicle. If your vehicle stereo is not already equipped with an auxiliary audio input jack, aftermarket kits are available for many makes and models that will allow for this type of modification.

1. In the Mode Select Menu, press on the Bluetooth button.
2. The current status of the Bluetooth antenna will be indicated at the top of the screen as "Bluetooth on" or "Bluetooth off". To turn the Bluetooth antenna on, press the Bluetooth icon button in the lower right corner of the screen. See **Figure 25**.
3. Once Bluetooth is turned ON, you will be able to pair a Bluetooth equipped phone. Press the Pair/Connect icon in the lower middle part of the screen. Next press the Search button to locate your phone. The "Search For Devices"

screen will display a list of devices that have already been identified by the iQ. If your device is not listed, make sure that your phone is in a Discoverable state and press the "Re-Search" button. When the iQ has found your phone, your phone should ask you to input the pairing code. The default code is "1234" (this PIN can be changed in the Pair/Connect menu). Once you enter the pairing code, your phone and the iQ should be connected via Bluetooth.

4. Press the iQ button in the upper right corner to return to the Pair/Connect Menu. The connected phone should be displayed on the screen. The primary selected device can be connected or disconnected from this screen using the "Connect/Disconnect" button. Use the options available to personalize the name and PIN code for the iQ. Select "Auto-connect" to automatically reconnect the phone to the iQ after a key cycle. You may also select "Auto-answer" to automatically answer incoming calls without the need to press any buttons.

Figure 25



5. Press the iQ button in the upper right corner to return to the Main Bluetooth Mode Menu. Once your phone has been connected to the iQ, you can use the Dialing feature to dial phone numbers from the iQ (upper left corner), or sync your phone and use the Phonebook or Call History features to place calls.

6. The iQ is also capable of streaming audio and control your phone's music management capabilities through Bluetooth using Advanced Audio Distribution Profile (A2DP) and Audio/Video Remote Control Profile (AVRCP)

technologies. Streaming should occur automatically when initiated from your phone, but results may vary from phone to phone. Click on the A2DP icon to check the status of streaming.

NOTE: if you experience occasional dropping of the audio signal, it may help to disable the WiFi antenna in the phone.

7. Click the iQ icon in the upper right corner to return to the Mode Select Menu.

-END, SECTION 11-

Section 12

COMPASS MODE

Compass

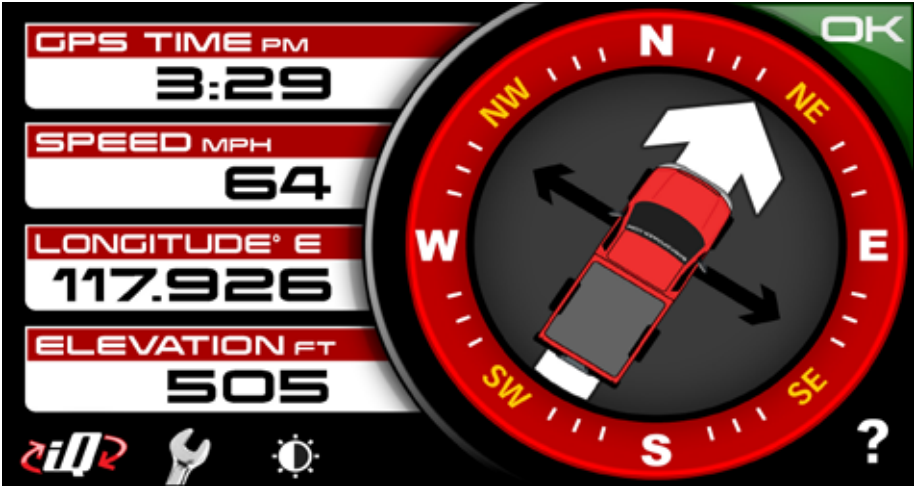
Press on the 'Compass' button in the 'Mode Select' menu. The Compass screen will display four (4) changeable gauges and a compass. See **Figure 26**. Refer to **Selection 17** to change the gauges displayed from a list of available parameters.

The Compass can be adjusted to have the vehicle pointer in the center spin around the compass settings or have the compass spin around the vehicle pointer to show the current heading. To

adjust the compass method of direction pointing, press on the 'Wrench' icon to go to the 'Options' menu. Press on the 'Direction' tab in the 'Options' menu. In the Direction menu press 'North up' to have the vehicle pointer rotate around the compass or press 'Direction up' to have the compass rotate around the vehicle pointer. After setting the compass, press the iQ icon to return to the 'Mode Select' menu screen.

-END, SECTION 12-

Figure 26



Section 13

GPS DATA MODE

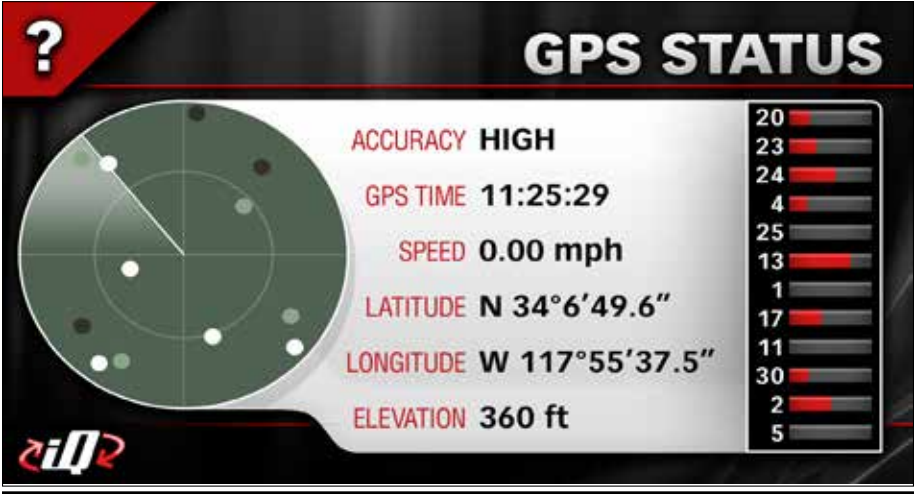
GPS Data

The GPS Data Mode provides the current status of the GPS in the Banks iQ. In the Mode selection menu press on the 'GPS Data' button. The Data displays the accuracy of the system depending on signal, the GPS Time, the Speed the

GPS is traveling, Latitude, Longitude, and the GPS Elevation. See **Figure 27**. After reviewing the data, press the 'iQ' icon to return to the Mode select menu.

-END, SECTION 13-

Figure 27



Section 14

NAVIGATION MODE

Banks GPS Navigation is an optional feature available to purchase from Gale Banks Engineering. This option is not standard on Banks iQ and will be disabled in the Mode Select menu. The software is sold on a micro SD card and must be inserted into the micro SD card port on the Banks iQ to run the Navigation program. Once the iQ detects the Navigation program the option will be made available for use.

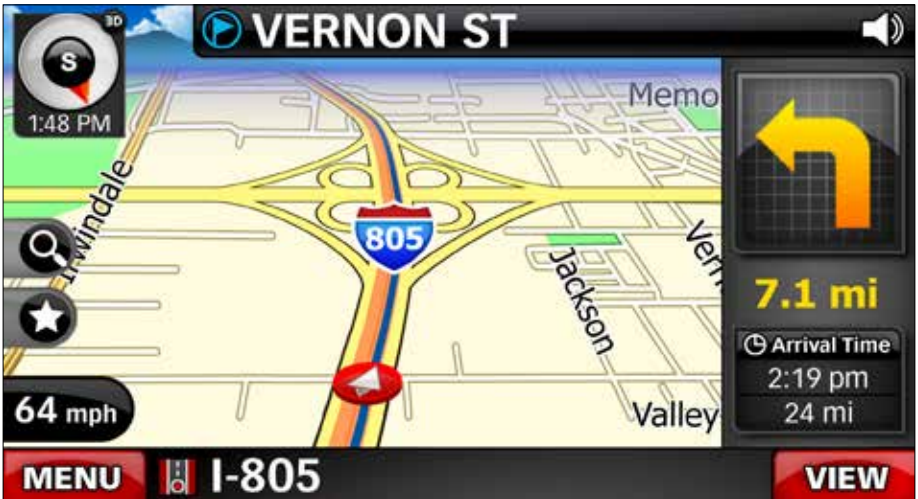
Please contact Banks Sales Department at (888) 635-4565 to purchase a copy of Banks GPS Navigation.

Banks GPS Navigation is a voice guidance program that uses statistical and probability analysis to help you select and set destinations quickly and easily. As you travel, the program displays your location on the map. Voice guidance tells you when and where to turn. See **Figure 28**. The main screen displays turn directions, compass heading, distance to next maneuver, and street names. If you leave your route, the program calculates a new route to your destination automatically.

Please refer to the Banks Navigation manual for step-by-step instruction of the navigation program.

-END, SECTION 14-

Figure 28



Section 15

ADJUSTMENTS MENU

Press the 'Wrench' icon next to the 'Banks iQ Home' icon in the lower left corner of the current mode screen to move to the 'Adjustments' menu.

Press the Left or the Right arrow to navigate through the 'Adjustments' menu.

menu. Further discussion of each adjustment option will be covered in the following sections. See **Figure 29**.

-END, SECTION 15-

Figure 29 'Adjustments' Menu for Power Tuner shown



Section 16

SET-UP

To change the Banks iQ's settings and alerts, press the 'Wrench' icon to open the 'Adjustments' Menu. See **Figure 29**. These settings include Screen Backlight, Touch Screen Calibration, GPS Speed Calibration, Units (units of measurement), Battery Management, (battery life indicator and sleep settings), Version Info (details about the Banks iQ, Tuner, and SpeedBrake system) and Tuner/SpeedBrake Update (upgrade, update device firmware).

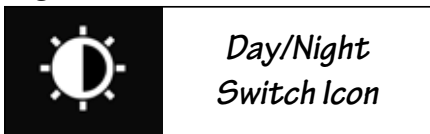
Screen Backlight

The Banks iQ can automatically dim the system monitor LCD brightness for nighttime operation. You can set the 'Screen Backlight' value that will be used, along with the daytime operating hours. When operating outside these hours the screen will dim to the value you specify.

NOTE: Values are saved as they are changed.

You can manually override your 'Screen Backlight' at any time by pressing on the Day/Night Switch icon on the upper left corner of your Banks iQ screen in the Information or Economy Modes. See **Figure 30**.

Figure 30



1. Press the 'Wrench' icon in the Information or Economy Modes.
2. Press the 'Screen Backlight' button in the 'Adjustments' menu. See **Figure 29**.
3. See **Figure 31**. In the 'LCD Properties' screen, press 'Enable' to activate or press

'Disable' to deactivate the Auto Dimming feature. The active selection will be highlighted red.

4. Touch the 'Left' or 'Right' arrow buttons to adjust LCD brightness to the desired level for daytime and nighttime operation. Your brightness selection will preview automatically as changes are made.

5. Set the transition time for auto dimming by pressing the 'Hour' and the 'Min' (minute) buttons below the day and night time.

6. Press the 'Banks iQ' icon on the lower left hand corner to return to the Current Mode screen. Press the 'Return' icon to go back to the 'Adjustments' menu.

Touch Screen Calibration

1. Press the 'Touch Screen Calibration' button in the 'Adjustments' menu.

2. Follow the on-screen instructions and press the targets as they appear on the display screen.

3. Press the 'Banks iQ' icon on the lower left hand corner to return to the 'Adjustments' menu.

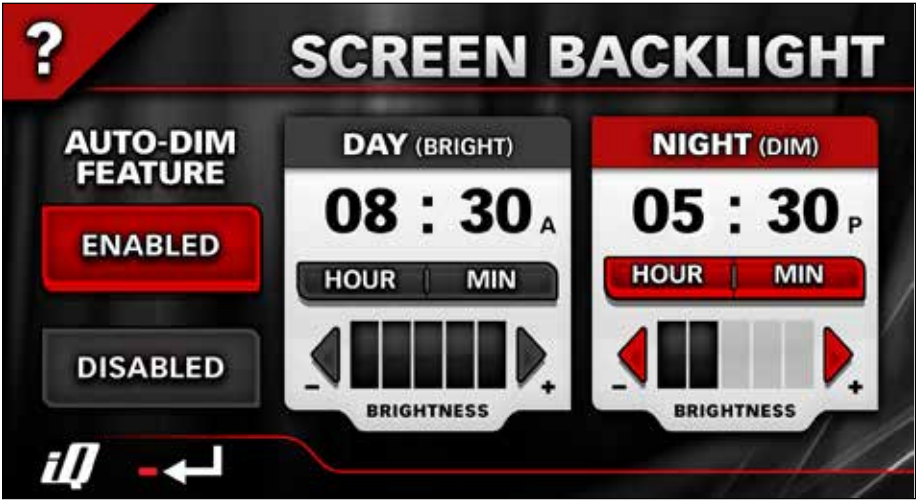
GPS Speed Correction

The Banks iQ speedometer uses GPS Speed Correction to deliver improved accuracy over your vehicle's stock unit. It even corrects for non-stock wheels and tires. Calibration is simple and there is no need to use a pace vehicle or manually input tire size.

1. Find an open, uncrowded stretch of road.

2. Press the 'GPS Speed Correction' button.

Figure 31

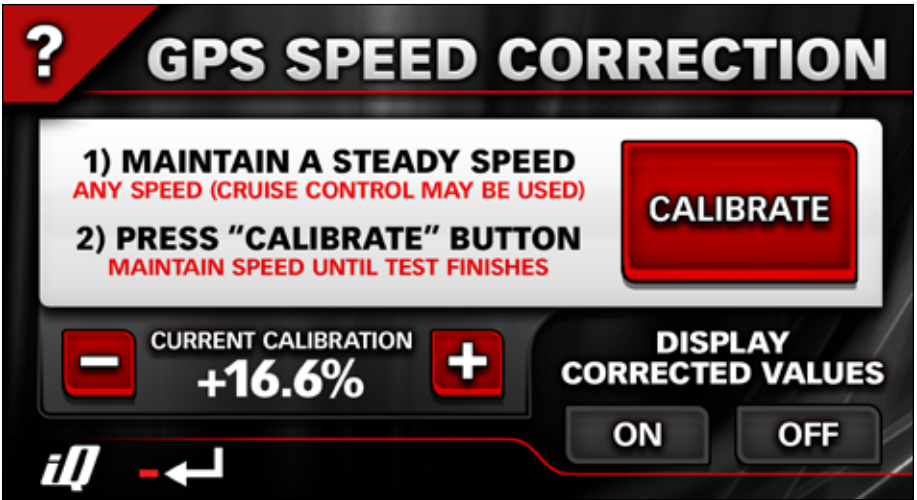


- 3. Maintain a steady speed. Any speed is acceptable. Cruise control may be used.
- 4. While maintaining a steady speed, press 'Calibrate'. During the calibration process. The GPS speed and the vehicle speed will be displayed. When the on-screen progress bar disappears from view, Speed Calibration is complete. See Figure 32.
- 5. The calibrated speed can be adjusted

manual. Press the plus (+) or minus (-) symbol to increase or decrease the speed calibration.

- 6. Use the 'On' and 'Off' buttons to display the corrected speed in the various modes on your Banks iQ.
- 7. Press the 'Banks iQ' icon on the lower left hand corner to return to the current mode screen. Press the 'Return' icon to go back to the 'Adjustments' menu.

Figure 32



Units

1. To change the unit of the displayed gauges, press the 'U.S./Metric' button in the 'Adjustments' menu.
2. Press the desired unit to be displayed on the gauges. Choose between U.S units or Metric units.
3. Press the 'Banks iQ' icon on the lower left hand corner to return to the current mode screen. Press the 'Return' icon to go back to the 'Adjustments' menu. See **Figure 33**.

Battery Management

1. To change the sleep setting for the Banks iQ, press the 'Battery Mgmt' button in the 'Adjustments' menu. See **Figure 34**.
2. Adjust the 'Display Sleep' time by pressing the left or right arrows.
NOTE: If the display turns off, turn it back on by pressing once anywhere on the screen.
3. Adjust the 'iQ Sleep' time by pressing the 'Left' or 'Right' arrows. iQ sleep will

begin to count down after the display has entered into 'Display Sleep' mode.

NOTE: 'iQ Sleep' will occur after 'Display Sleep' has been activated. To manually enter or exit 'Sleep' mode, press the MENU button on top of the device.

4. Press the 'Banks iQ' icon on the lower left hand corner to return to the current mode screen. Press the 'Return' icon to go back to the 'Adjustments' menu.

Master Volume

1. To change the Volume Level for the iQ, press the 'Volume' button in the 'Adjustments' menu.
2. To adjust the volume level, press the plus (+) or minus (-) button to increase or decrease the volume level. See **Figure 35**.
3. Press the 'Banks iQ' icon on the lower left hand corner to return to the current mode screen. Press the 'Return' icon to go back to the 'Adjustments' menu.

Figure 33



Figure 34

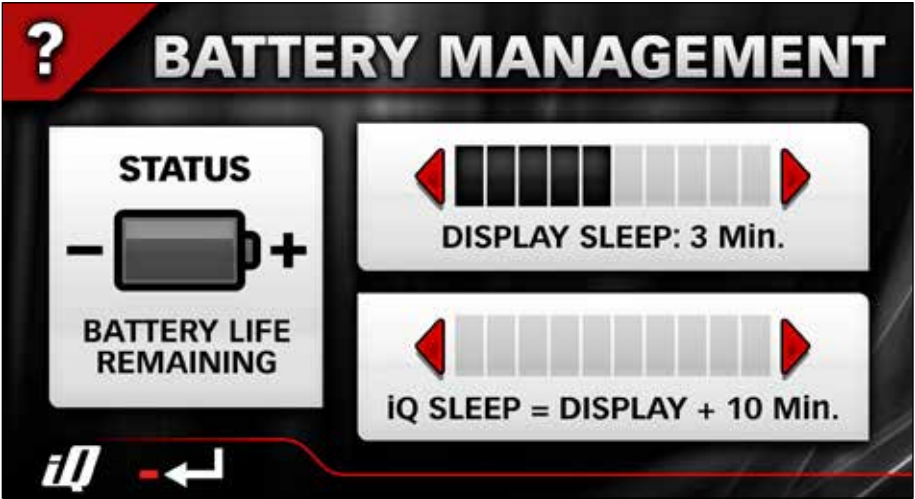


Figure 35



To update Banks iQ Software

1. For Windows XP users, make sure that Microsoft ActiveSync is installed on your computer and that you have an active internet connection.

For Windows 7 and Vista users, make sure that Microsoft Mobile Device is installed on your computer.

NOTE: If you do not have Microsoft ActiveSync or Mobile Device visit www.microsoft.com/windowsmobile or visit Banks website for direct links and detail update instruction at www.bankspower.com/iqupdate

2. Install the Banks iQ Update Utility on your computer by visiting www.BanksPower.com/Downloads.

3. Turn the Banks iQ on and allow it to complete its booting process (about a minute). In the 'Mode Select' menu press on the 'Productivity' Mode. Then press on 'Desktop' tab to open the

Windows desktop. For instruction on how to access the Desktop refer to **Section 9**. Then plug the Banks iQ into your PC using the supplied USB cable.

CAUTION: The iQ must be in the the Windows desktop before connecting the iQ to a PC. The iQ will either ignore the connection or register an error if the iQ is not in the 'Desktop' mode.

4. Start the Banks iQ Update Utility and follow the on-screen directions on your PC to update your Bank iQ with the latest software updates.

For more detail instruction to update your Banks iQ please go to www.bankspower.com/iqupdate.

-END, SECTION 16-

Section 17

GAUGE PLACEMENT

*NOTE: To quickly change any gauge in your Banks iQ display, press on the gauge you want to change and you will be taken to the 'Gauge Placement' screen. See **Figure 36**.*

Press the 'Wrench' icon to move to the 'Adjustments' menu. Press 'Gauge Placement', which allows you to change the gauges on view in the display.

- 1.** Press the gauge you want to move or change on the right-hand side. A list of gauges to choose from appears on the left. See **Figure 36**.
- 2.** Scroll Up or Down through the optional parameters available on the left hand side of the screen.
- 3.** Highlight the desired parameter on the left side of the screen.

4. Repeat Step 1 through 3 to change all desired gauges.

5. To save changes, press on the 'Banks iQ' icon to return to the current mode screen or the 'Return' icon to return to the 'Adjustments' menu.

Reset to Default

- 6.** To reset to default gauges navigate through the 'Adjustments' menu.
- 7.** In the Gauge Placement screen, press on the 'Reset to Default' button to return all gauges to the default setting.
- 8.** Press the 'Banks iQ' icon to return to the current mode screen or the 'Return' icon to return to the 'Adjustments' menu.

-END, SECTION 17-

Figure 36 Gauge Placement



Section 18

GAUGE STYLE

Press the 'Wrench' icon to move to the 'Adjustments' menu screen.

Press 'Gauge Style', which allows you to change the style of the gauges in your display.

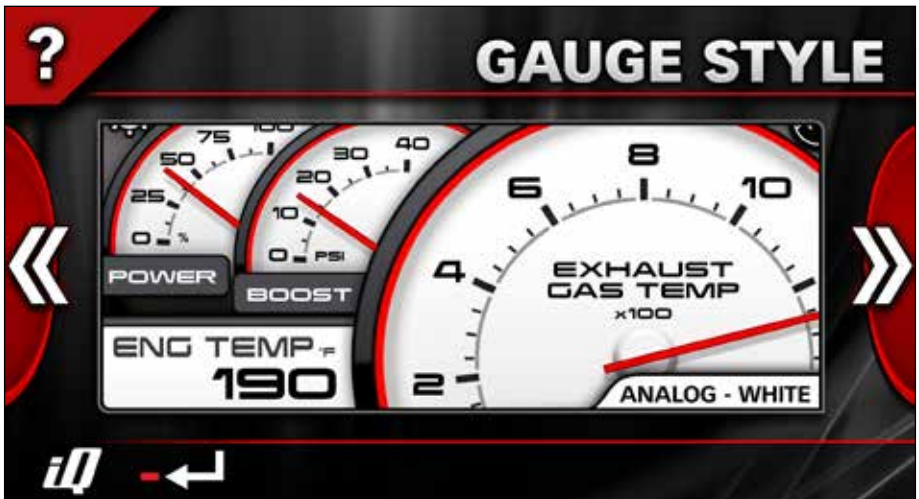
1. Scroll Right or Left to view all available gauge style choices. Stop when you see the style you want for your gauge display. See **Figure 37**.

2. Press the 'Banks iQ' icon to save your gauge style and return to the current mode where you can see it in action.

3. Press the 'Return' icon to return to the 'Adjustments' menu.

-END, SECTION 18-

Figure 37 Analog Gauge Style



Section 19

GAUGE COLOR

Press the 'Wrench' icon to move to the 'Adjustments' menu screen.

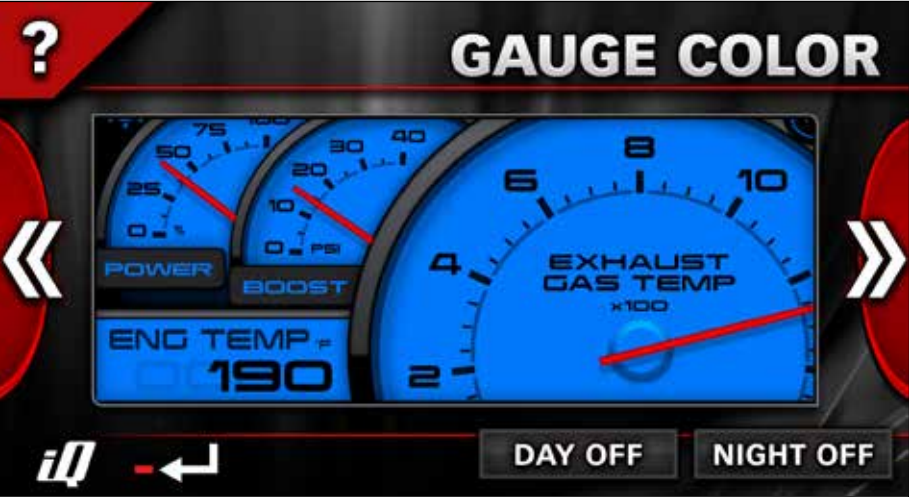
Press 'Gauge Color', which allows you to change the color of the gauges in your display.

- 1. Scroll Right or Left to view the spectrum of color choices. Stop when you see the color you want for your gauge display. See **Figure 38**.
- 2. Use the 'Day On/Off' button to determine if you want the color you've chosen displayed during the day time Screen Backlight hours you selected in 'Initial Set-up'. For more information on Screen Backlight, see **Section 16**.

- 3. Use the 'Night On/Off' to determine if you want the color you've chosen displayed during the night time Screen Backlight hours you selected in 'Initial Set-up'. For more information on Screen Backlight, see **Section 16**.
- 4. Press the 'Banks iQ' icon to save and return to the current mode screen or the 'Return' icon to return to the 'Adjustments' menu.

-END, SECTION 19-

Figure 38 Gauge Color



Section 20

GAUGE DESCRIPTIONS

Receive Update Notices

Banks iQ is constantly evolving and new gauges in addition to the ones described below may be available. We invite you to register at

www.bankspower.com/banksiq to receive important emails regarding updates and upgrades for your Banks iQ device.

Following is a list of the gauges you can choose to be in your Banks iQ display and what they measure.

NOTE: Not all gauges are accessible in all Modes.

\$ PER DAY: Displays the calculated operational cost per day. Must enter cost of fuel at fill up to get accurate display.

\$ PER TRIP: Displays the calculated operational cost per trip. Must enter cost of fuel at fill up to get accurate display.

AIR FLOW: Displays the intake air flow in lbs/min or g/sec.

AMB TEMP: Measures the temperature of the air outside the vehicle in your choice of degrees Fahrenheit or Centigrade (F or C).

AVG ECON: Displays the average fuel economy in miles per gallon (MPG) or liters per 100 kilometers (L/100K) since the last trip reset.

AVG SPD MOV: Calculates the average speed while the vehicle is moving since last reset.

AVG SPD TTL: Calculates the average speed from trip beginning since the last trip reset.

BARO: Measures the barometric (atmospheric) pressure outside your vehicle in inches of mercury (inHg).

CAT TMP 1F/2F: Displays the temperature of the exhaust gas at the inlet of the catalytic converter in your choice of degrees Fahrenheit or centigrade (F or C).

CAT TMP 1R/2R: Displays the temperature of the exhaust gas at the outlet of the catalytic converter in your choice of degrees Fahrenheit or centigrade (F or C).

DIRECTION: Display your current direction. NORTH (N), NORTHEAST (NE), EAST (E), SOUTHEAST (SE), SOUTH (S), SOUTHWEST (SW), WEST (W), AND NORTHWEST (NW).

ELEVATION: Measures the elevation you are driving at in your choice of Feet or Meters above sea level (FT or M).

NOTE: Elevation should be accurate within +/- 50 feet or 15 meters 95% of the time. On rare occasions, you may experience a variance greater than +/- 15 meters or 50 feet. This is considered normal for devices of this type.

ENG HOURS: Displays the amount of engine on time since trip reset.

ENG LOAD: Displays calculated engine load. This value indicates the amount of available power at the current RPM That is being used.

ENG TEMP: Measures the temperature of vehicle's engine coolant in your choice of degrees Fahrenheit or Centigrade (F or C).

EGR: Displays the position of the EGR valve in percentage; 0% = fully closed, 100% = fully open.

FUEL>>EMPTY: Displays the amount of fuel left before empty in your choice of gallons or liters.

FUEL LEVEL: Measures the current fuel level of your vehicle.

FUEL PRESS: Displays the vehicles engine fuel pressure in PSI or KPa.

FUEL USED: Displays the amount of fuel used since last trip reset.

GPS SPEED: Displays the current speed in miles per hour (MPH) or kilometers per hour (KPH) as determined by the GPS signal.

GRADE: Measures in percentage the climb or descent road grade.

HEADING: Displays the direction of travel in compass degrees.

IMAN PRESS: Displays the vehicles absolute intake manifold pressure in PSI or KPa.

INST ECON: Displays the instant fuel economy of the vehicle in MPG or L/100k.

INT TEMP: Measures the vehicle intake air temperature in your choice of degrees Fahrenheit or Centigrade (F or C).

LATITUDE: Displays the current latitudinal position in the decimal degree format.

LIFE ECON: Display the average fuel economy of the vehicle since installation of the iQ.

LONGITUDE: Displays the current longitudinal position in the decimal degree format.

ODOMETER: Displays the vehicles distances traveled since installation of the iQ.

RANGE: Displays the distance left before fuel tank is empty in miles or kilometers.

RPM5K & 8K: Measures how fast your engine's crankshaft is spinning in revolutions per minute (RPM). Displays RPM scaled for 0-5000RPM or 0-8000RPM.

RUN TIME: Displays the amount of time engine has been running.

SPARK ADV: Measures the timing of the ignition event in relation to Top Dead Center (TDC) Positive values are before TDC and negative valves are after TDC.

SPEED1 & 2: Measures how fast your vehicle is going in your choice of miles per hour or kilometers per hour (MPH or KM). Display Speed limit 0-140 MPH (0-220 KM) or 0-220 MPH (0-360 KM). Corrected value will be displayed if the GPS Speed Calibration is Active (See **Section 16**).

TIME AM/PM & 24HR: Display the current time in 12 hour standard time or 24 hour military time.

TIME>>EMPTY: Displays the amount of time left before fuel tank is empty.

TRIP ODO: Displays the current trip distance in miles or kilometer.

TRIP TIME: Displays the engine on time for the current trip.

VOLTS: Displays the vehicles battery(s) voltage.

-END, SECTION 20-

Section 21

ON SCREEN ALERTS

1. Select the 'Wrench' icon to go to the 'Adjustments' menu. Press the 'On Screen Alerts' button.
 2. Scroll Up or Down through the optional Alert Parameters available on the left hand side of the screen. See **Figure 39**.
 3. Highlight the desired parameter on the left side of the screen.
 4. Press the plus (+) or minus (-) symbols to increase or decrease the selected parameter Alert Set Point. The display shows the adjusted value.
- NOTE: The limit for each parameter Alert Set Point is displayed right above the adjusted value Set Point.*
5. To set the volume sound level for the alerts, Press the plus (+) or minus (-) symbol below the 'Reset' button to increase or decrease the sound level.

Three (3) volume levels plus a silent mode are available.

6. Repeat steps 2 through 5 to adjust all the desired parameters.

7. Once all parameter have been adjusted and to save changes, press the iQ icon to return to the current mode screen or the 'Return' icon to return to the 'Adjustments' Menu.

*NOTE: In the event an alert set point is reached an audible alarm will sound and the Status Indicator will display an icon relative to the associated alert. See **Figure 40** and the alert descriptions. The alarm will turn off once the associated parameter is below its alert set-point. The Status Indicator will then return to 'OK'.*

8. You can return Banks iQ to its default alert settings at any time by pressing the 'Reset To Default' button.

Figure 39 Alert Screen

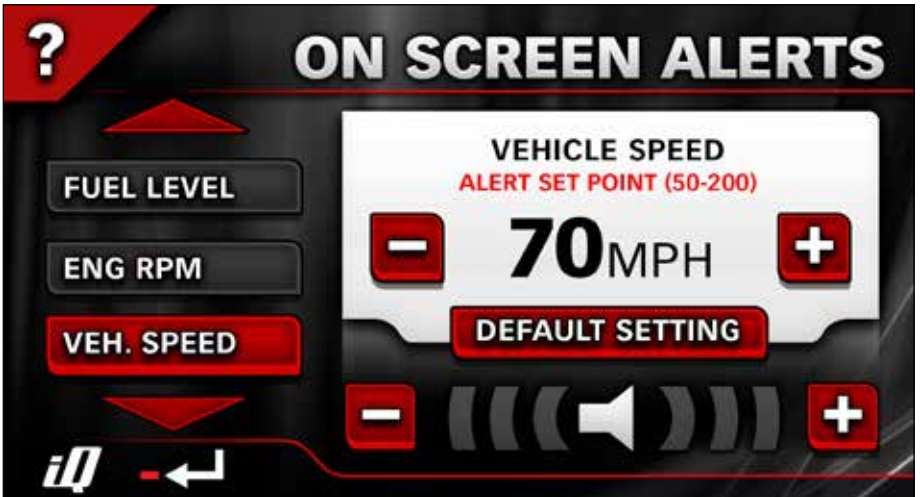
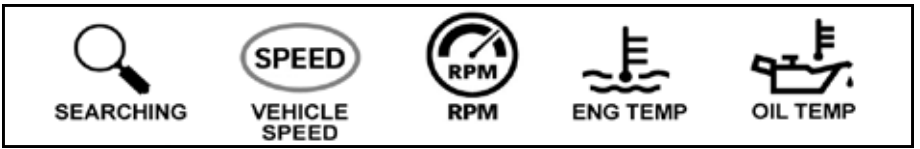


Figure 40 Alert indicator icons



Alert indicator Description

SEARCHING- A searching icon will indicate a communication error between the Banks iQ, Bridge, Tuner, Brake, and/or the vehicle. Go over all wiring and make sure they are proper connected.

VEHICLE SPEED- The vehicle speed icon will indicate the vehicle speed is above the user alert set point. Lower your speed below the set speed to clear the alert.

OIL TEMP- The vehicle engine oil temperature is over the user set alert

point. Safely stop the vehicle and check the engine oil.

RPM- The vehicle RPM is over the user set alert point. Reduce speed to lower RPM. If alert continues, safely stop the vehicle and check your engine.

ENG TEMP- The engine temperature is over the user set alert point. Safely stop the vehicle and check the engine.

Go to the begin of this section to adjust the user alert set point for any alert.

-END, SECTION 21-

Section 22

MAX VALUES

Max Values allow you to observe the maximum values that have been achieved for the parameters available for your vehicle since the last Reset cycle. See **Figure 41**.

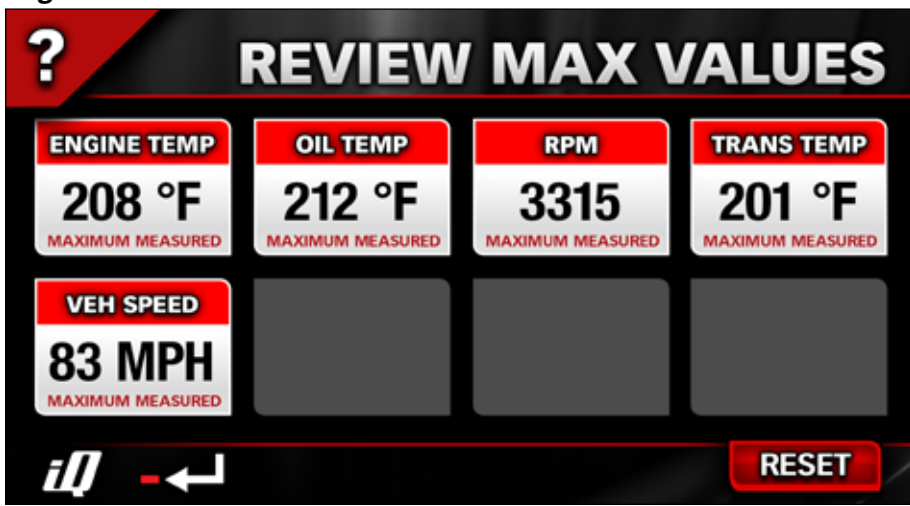
1. To view Max Values, in the 'Adjustments' menu press the Max value button.
2. After viewing your Max Values you can reset to clear the current values. Press the 'Reset' button in the lower

right hand corner. A pop-up screen will appear to confirm reset. Press 'yes' to confirm reset value, press 'no' to cancel reset.

3. After viewing your Max Values, press the 'Banks iQ' icon to return to the current mode screen or the 'Return' icon to return to the 'Adjustments' menu.

-END, SECTION 22-

Figure 41



Section 23

VERSION INFO

The current version of the Banks iQ, Banks Power Tuner, and/or SpeedBrake can be checked and compared to the current version available on the Banks website.

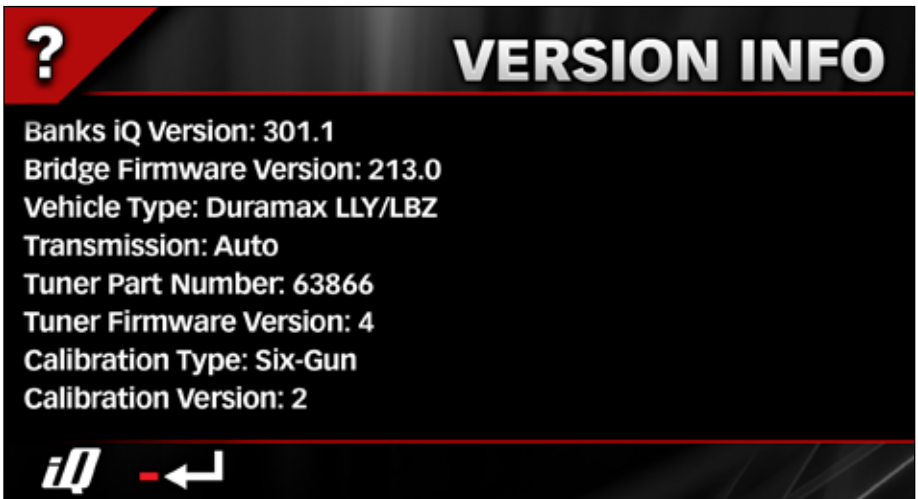
1. In the 'Adjustments' menu press the 'Version Info' button.
2. The version Info screen will display the current firmware version, as well as various other system configuration information. See **Figure 42**.

3. Press the arrows to scroll through the 'Version Info' screen. All available device information will be displayed.

4. Press the 'Return' icon to return to the 'Adjustments' Menu or press the 'Banks iQ' icon to return to the current mode screen.

-END, SECTION 23-

Figure 42



Section 24

TROUBLESHOOTING

Banks Bridge

The Banks Bridge Module transports information back and forth between your vehicle and Banks iQ. Note that there are two green lights on this Module. With the ignition off and the Banks Bridge viewed with the “banks” logo reading properly, the right hand light will pulse on and off. With the engine running and Banks iQ connected, both lights will switch back and forth to tell you that Banks iQ is communicating with your vehicle. Should Banks iQ become disconnected, the left light will pulse on and off to tell you that communication has been interrupted.

Loss of communication between Banks iQ and vehicle.

A magnifying glass icon will appear in the upper right-hand corner of Banks iQ display. See **Figure 43**.

Figure 43



1. Make sure the vehicle ignition key is in the ON position.
2. Make sure the Banks iQ is properly connected to vehicle as described in **Section 3**.
3. Check the connection at the OBD II diagnostic port (under the driver's side dash area). Check for any damage to the OBD II connector "hood", such as if it has become dislodged from the connector housing.
4. Check the USB connection at the Banks iQ.
5. Turn the iQ Power OFF and back on. some situation can be resolved simply by ressting the iQ in this manner.
6. If cycling the power on the iQ is ineffective, a hard rest may be helpful. Use the stulus pen to press the RESET button on the back side of the iQ.

-END, SECTION 24-

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