FC-Datalogit

Nissan GTR 32/33 DETT User Manual

http://www.fc-datalogit.co.nz

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Version 3:01 (30-September-02)

GTR32 DETT

GTR33 DETT

Contents

- Z-Screen Captures

FC-Datalogit

Introduction. ^ Back to Contents

FC-Datalogit is a package comprised of:
FC-Edit Software
FC-Box Hardware
A serial, or optional USB converter, cable to connect the FC-Box to a laptop
An FC-Datalogit CD
Membership for the User E-Group

- Description (Shot cut key) [short key (then >) short key]
    - What it does
        - How to use it
            - NOTE
            - DANGER!

Read this manual carefully before you plug the FC-Box in!
But if you want to just jump right in and plug it in and figure out what it all means latter go straight to here >>> Datalogit FC-Box; Connection & starting the system, at your own risk.
*Note that the connection section is near the end of the manual. It might be wiser to read your way to it…

Questions? Manual-GTR3233dett@fc-datalogit.co.nz

*An important Notice before you plug in your FC-Box {E-3-3 Tuner String}

FC-Datalogit CD

- The FC-Datalogit CD
  - You will receive an FC-Datalogit CD with you FC-Datalogit Package.
  - The CD contains
    - A PDF copy of the this manual (the manual is updated regularly, so check the Datalogit-FD3S E-group for the latest version)
      - Note BETA testers don't get the manual on the CD. You must download it from the E-Group
    - FC-Edit (FC-Edit is updated regularly, so check the Datalogit-FD3S E-group for the latest version)
    - You must install the version of FC-Edit from the Datalogit CD before you can update it!
    - Log folder: with a sample log
    - Settings folder: with Power default settings
    - Set-up exe
    - To install FC-Edit
    - Insert the CD into your CD ROM drive
    - Open the CD
    - Double click "setup exe", follow the set-up instructions

FC-Datalogit-user user E-group

http://groups.yahoo.com/group/FC-Datalogit-user

You must purchase FC-Datalogit for GTR 32/33 DETT before you can be invited to join the FC-Datalogit user e-group.
You must not redistribute anything from the e-group.
We encourage members to share their knowledge within the group redistribution may put this in jeopardy.
FC-Datalogit reserves the right to remove members from the e-group at their discretion.

To be invited e-mail the following information to glen@fc-datalogit.co.nz
Car; make, model & Engine.
Power FC version.
FC-Box serial number.
FC-Edit version number.
Date and point of purchase.

The e-group is a user forum with a database and some other web tools.
The latest version of FC-Edit and this manual are kept on the e-group.
There is a section for users to post / share their setting data if they wish.
If you have any questions about FC-Datalogit or general tuning we encourage you to post them to the e-group.
All questions are posted to all e-group members.
Likewise if you can answer a question feel free to answer. We value your input. We have also added a section where you can make suggestions. We will include anything reasonable and achievable.

1- FC-Edit Main

Refer to FC-Edit Cover page {FC-Edit}

Main refers to the drop down menus and items placed around the central tab area on the FC-Edit software

1-1 File

- Drop down File menu (Alt f)
- To access the following commands; New, Open, SaveAs, Compare and Exit
    - To open the drop down File menu, Left Click “File”, once

1-1-1 Default

- Restore maps and settings to “Default”
    - Loads the file “default.dat” from FC-Edit folder in program files
        - To load the file “default.dat”, Left Click “Default” in the drop down File menu, once
            - The default file is NOT the same as resetting the Power FC to Apexi original settings with a commander.
            - To make the default file the same as your Apexi Power FC original settings
                - Reset your Power FC with a commander
                - Save the settings with Datalogit “save as” function
                - Name the file “default.dat”
            - You can change the data in the default file by
                - Opening the default file, change the maps or settings and then save the file as default.dat
                - Or by re-naming any other settings file “default.dat”

- All unsaved data or unsaved changes made to the previous file will be written over with the maps and settings in your default file
- Save files or you will loose the data!

1-1-2 Open

- Open an existing File (Alt o) [Alt f > Alt o > left click to choose file > Alt o]
    - To Open an existing file
        - To Open a existing file, Left Click "Open" in the drop down File menu, once
        - "Open" window will appear
        - Locate the file you wish to open
        - Double left click the file you wish to open
        - OR left click the file and left click the open button
            - All unsaved data or unsaved changes made to the previous file will be written over
            - Save files or you will loose the data!

1-1-3 SaveAs

- Save a File (Alt a) [Alt f > Alt a > Alt n (name the file) > Alt s]
    - To Save a file
        - To Save a file, Left Click "SaveAs" in the drop down File menu, once
        - "Save As" window will appear
        - Left click in the "File name" box and give the file a unique name
        - OR, left click on an existing file
        - Left click on the "Save" button
            - If you choose to save a file using an existing file name, the original file will be written over

1-1-4 Compare

- This unique tool is used to compare two files of settings to see if any values are different (Alt c) [Alt f > Alt c > left click to choose file > Alt o]
    - To Compare a file you are working on to another file
        - Save the file you are working on.
        - Click "Compare" in the drop down File menu, once
        - "Open" window will appear
        - Locate the file you wish to Compare with the file you already have open
        - Double left click the file you wish to Compare
        - OR left click the file and left click the open button
            - The difference between the two files will be displayed in all setting and map windows
            - Settings with a positive (+) difference to the file you chose to compare to will be highlighted in red
            - Settings with a negative (-) difference to the file you chose to compare to will be highlighted in Yellow
            - {T-1} To view the settings in two files simultaneously

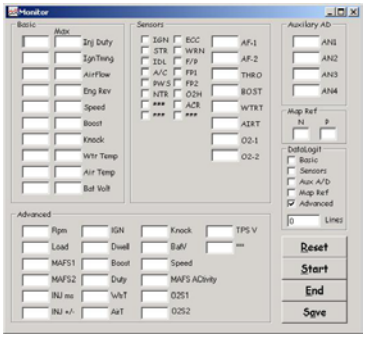
1-1-5 Exit

- Shut down FC Edit program (Alt x)
    - To close FC Edit program
        - To Close FC Edit, Left Click "Exit" in the drop down File menu, once
            - All unsaved data or unsaved changes made to the previous file will be lost
            - Save files or you will loose the data!

1-2 Window

- Drop down Window menu (Alt w)
    - To access the following windows; Monitor, Graph, Chart, Map and Add Watch
        - To open the drop down Window menu, Left Click "Window", once

1-2-1 Monitor Window (FC-Datalogit)

-  Click for Screen capture {Monitor Window}
- Monitor Window (Alt m) [Alt w > Alt m]
    - Monitor Window displays the various streams of data that can be logged
        - To open the Monitor window Click “Monitor” in the drop down Window menu, once
            - The streams of data are organized in separate Zones
            - One Zone or a combination of Zones can be logged

1-2-1-1 Basic Zone

- Basic general data Zone
    - A Zone on the Monitor Window that displays general data available for logging
        - To select data streaming in the Basic Zone of the Monitor Window for logging Check the “Basic” check box in the Datalogit Zone on the Monitor Window
            - There are two boxes for each Data value; Live on the left and Max on the right
            - The following Data is displayed in the Basic Zone of the Monitor Window;
                - Inj Duty; Injector Duty time
                - Ign Tmng; Ignition Timing
                - AirFlow; Air Flow meter voltage
                - Engine Rev
                - Speed
                - Boost
                - Knock; {N-2 Knock Value}
                - Wtr Temp; Water Temp
                - Air Temp; Manifold inlet Air Temp
                - Bat Volt

1-2-1-2 Sensors Zone

- Sensors Zone
  - A Zone on the Monitor Window that displays the status (on or off) or the value of various sensors.
    - To select data streaming in the Sensor Zone of the Monitor Window for logging, check the “Sensor” check box in the Datalogit Zone on the Monitor Window
      - The status of the following sensors is displayed in the Sensor Zone of the Monitor Window;
        - IGN; Ignition
        - STR; Starter Switch
        - IDL
        - A/C; Air Conditioner Switch
        - PWS; Power Steering Oil Pressure Switch
        - NTR; Neutral Gear Select Switch
        - ***; Unknown
        - ***; Unknown
        - ECC
        - WRN
        - F/P
        - FP1
        - FP2
        - O2H
        - ACR
        - ***; Unknown
      - The value of the following sensors is displayed in the Sensor Zone of the Monitor Window;
        - AF-1
        - AF-2
        - THRO; Throttle Position
        - BOST;
        - WTRT; Water Temp Sensor
        - AIRT; Intake Air Temp Sensor
        - O2-1; O2 Sensor 1
        - O2-2; O2 Sensor 2

1-2-1-3 Auxiliary AD Zone

- Additional input Zone

- Provision has been made on the {FC1 FC-Box 4 Additional inputs} for up to four additional inputs. Their values are displayed in the Auxiliary AD Zone on the Monitor Window and can be logged
  - To select data streaming in the Auxiliary AD Zone of the Monitor Window for logging, check the "Aux a/d" check box in the Datalogit Zone on the Monitor Window
    - There are 4 additional input posts on the FC-Box, they are marked
      - AD0
      - AD1
      - AD2
      - AD3
    - Voltage must be between 0~5 volts
    - Possible additional inputs;
      - Wide band o2 sensor. UEGO
    - See section {E-5 FC-Box Custom Features} for more information
    - {1-3-2 Auxiliary (set up)} set up scale and values for A/d

1-2-1-4 Map Position Zone

- Map Position Zone
  - Shows the current map position by displaying the values of "P" (P01~P20) and "N" (N01~N20), which can be logged
    - To select data streaming in the Map Position Zone of the Monitor Window for logging, check the "Map" check box in the Datalogit Zone on the Monitor Window
      - The values for "P" and "N" can be rescaled, see section {C-1 Map Reference} for more information
      - P01~P20 {N-3 Pressure Value (Air flow)} in the Fuel and Ign Maps
      - N01~N20; RPM.

1-2-1-5 Advanced Zone

- Advanced Zone

- A Zone on the Monitor Window that displays data useful for tuning and available for logging
  - To select data streaming in the Advanced Zone of the Monitor Window for logging Check the "Advanced" check box in the Datalogit Zone on the Monitor Window
    - The following Data is displayed in the Advanced Zone of the Monitor Window;
      - Rpm
      - Load;
      - MASF 1
      - MASF 2
      - INJ ms
      - INJ +/-
      - INGN
      - Dwell
      - Boost
      - Duty
      - WtrT; Water Temp Sensor
      - AirT; Intake Air Temp Sensor
      - Knock {N-2 Knock Value}
      - BatV
      - Speed
      - MAFS Activity
      - O2S1; O2 Sensor 1
      - O2S1; O2 Sensor 1
      - TPS V; Throttle Position Sensor Voltage
      - *** Unknown

1-2-1-6 FC-Datalogit Zone

- Data logging Zone
  - The area on the Monitor Window that displays which data zones have been chosen to be logged
    - To select which Zone on the Monitor Window you want to log, check the appropriate check box on the Monitor Window. You can choose one, any or all Zones.
      - The following Zones of Data on the Monitor Window are available for logging;
        - Basic Zone; 10 items
        - Sensors Zone; 24 items
        - Aux A/D Zone; 4 items
        - Map Ref Zone; 2 items

- Advanced Zone; 20 items

1-2-1-7 Lines (Logged)

- "lines" in the Datalogit Zone
- Shows the number of lines of data that were logged in the last logging session
  - The data, if viewed as a text file, is collected line by line
  - Each line has one value for each item logged, separated by a "Tab"
  - If you get 30 logs per second you will get 30 lines for each second logged
  - Different versions of Power FC will log at different rates.
  - More zones logged gives less lines per second due to the speed limit at which data can be extracted from the Power FC

1-2-1-8 Reset

- Reset values on Monitor Window (Alt r)
  - Used to Reset the maximum values in the Monitor Zone. Resets all values on the Monitor Window and discards the current log file
  - Left Click the "Reset" button on the Monitor Window, once
    - There is no auto save so Resetting will delete the current log file
    - Save files or you will loose the data!

1-2-1-9 Start

- Start Logging (Alt s)
  - Starts logging the selected Zones
  - Left Click the "Start" button on the Monitor Window, once
    - There is no auto save so "Start" will delete the previous log file
    - Save files or you will loose the data!

1-2-1-10 End

- Stop Logging (Alt e)

- Stops logging of the selected Zones
  - Left Click the "End" button on the Monitor Window, once
    - There is no auto save. "End" will only stop the current logging. The file created will remain until you Reset or Start a new log
    - Save the file as soon as possible
    - Save files or you will loose the data!

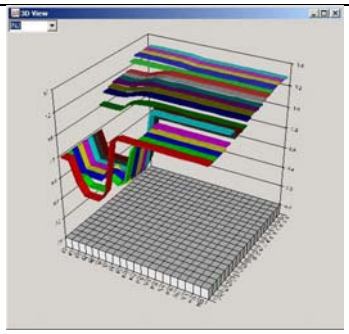
1-2-1-11 Save (Alt a)

- Save log file
  - Saves the log file you have just created
    - Left Click the "Save" button on the Monitor Window, once
    - "Save As" window will appear
    - Left click in the "File name" box and give the file a unique name
    - OR, left click on an existing file
    - Left click on the "Save" button
      - If you choose to save a file using an existing file name, the original file will be written over

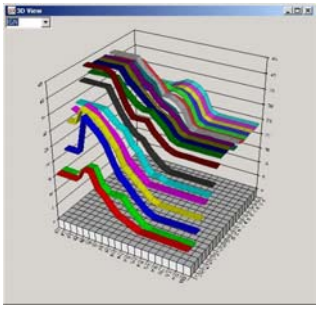
1-2-2 Graph

- Graphical representation of the data contained in the Maps (Alt g) [Alt w > Alt g]
  - Shows graphs of the following maps; INJ & IGN
    - To open the Graph Window Click "Graph" in the drop down Window menu, once
    - You can resize the Graphs by dragging the graph window

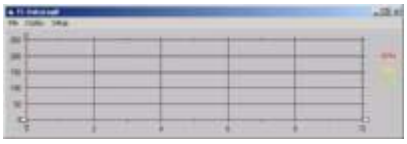
1-2-2-1 INJ

-  Click for Screen Capture {INJ}
  - Graphical representation of the Injector correction map [Alt w > Alt g > choose "INJ" from the drop down list]
  - Shows a graph of the Injector correction map
    - To View the graph of the Injector correction map, choose "INJ" from the drop down list on the Graph Window

1-2-2-2 IGN

-  Click for Screen Capture {IGN}
  - Graphical representation of the Leading Ignition map [Alt w > Alt g > choose "IGL" from the drop down list]
  - Shows a graph of the Leading Ignition map
    - To View the graph of the Injector correction map, choose "IGL" from the drop down list on the Graph Window

1-2-3 Chart

-  Click for Screen Capture {FC-Datalogit Chart window}
- Live Chart plotter (Alt c) [Alt w > Alt c]
- GMS Strip Chart by "Global Magic Software Inc." Used under license by FC-Datalogit

- Plots live charts of data logging or can be used to review saved logged data
  - To open the Chart Window Click “Chart” in the drop down Window menu, once
  - Resize the chart if required
  - See {1-2-3-4-1 Chart (setup)} to setup the chart.

- Once you have set up the chart you can use it to view live data or review logged data.
- Open a saved log in the chart.
  - You can move the curser line along the chart with the arrow keys or scroll with a mouse
  - Set up some watches and they will display the value of the watched data where the curser line meets the plotted data line (trace)
  - You can stretch or compress time by sliding the arrows on the time line along the bottom of the chart
  - You can alter the height of each chart by dragging the top or bottom of each chart

1-2-3-1 File

- Drop down File menu for Charts
  - To access the following commands; Open, Save, SaveAs, and Exit
    - To open the drop down File menu, Left Click “File”, once

1-2-3-1-1 Open

- Open an existing Chart File
  - To Open an existing Chart file
    - Left Click “Open” in the drop down File menu, once
    - “Open” window will appear
    - Locate the file you wish to open
    - Double left click the file you wish to open
    - OR left click the file and left click the open button

1-2-3-1-2 Save as

- Save a Chart File under a different name
    - To Save a file
        - Left Click “SaveAs” in the drop down File menu, once
        - “Save As” window will appear
        - Left click in the “File name” box and give the file a unique name
        - OR, left click on an existing file
        - Left click on the “Save” button
            - If you choose to save a file using an existing file name, the original file will be written over

1-2-3-1-3 Exit

- Shut down Chart window
    - To close Chart window
        - Left Click “Exit” in the drop down File menu, once
            - Chart settings will remain and the chart will look the same when you reopen it

1-2-3-2 Log

- Drop down Log menu
    - To access the following windows; Start and End
        - To open the drop down Log menu, Left Click “Log”, once

1-2-3-2-1 Start F1

- Start logging

1-2-3-2-2 End F2

- Stop logging

1-2-3-3 Window

- Drop down Window menu
    - To access the following window; Add watch
        - To open the drop down Window menu, Left Click “Window”, once

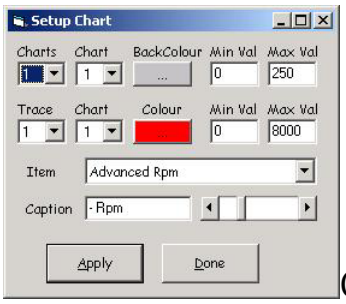
1-2-3-3-1 Add Watch

- Opens the Add Watch window {1-3-4 Add Watch}

1-2-3-4 Setup

- Drop down Setup menu
    - To access the following Chart Setup window
        - To open the drop down Setup menu, Left Click “Setup”, once

1-2-3-4-1 Chart (setup)

- 

Click for Screen Capture {Setup Chart }
    - Click “chart” in the drop down setup menu Setup chart window will appear
    - You can have up to 4 charts in the chart window
        - Click “charts” drop down box and select the number of charts required
    - You can give each chart a different background colour if desired. (Some trace colours clash and are hard to see against some background colours)
        - Click “chart” drop down box and choose the chart number then choose desired background colour for that chart
    - You can have a different scale for each chart (and a different scale for each trace)

- Click “chart” drop down box and choose the chart number then assign a max and min value for that chart
- Choose the number of traces you want to display and which chart you want each one on
- Do this for as many traces you require
  - You can have a maximum of 20 traces
- Click “trace” drop down box and choose a trace number
- Click “trace chart” drop down box and select which chart you want this trace to be displayed on
- Choose a colour for the trace
- Choose a max and min value for the trace
- Click the “Item” drop down box and choose the channel you want for the trace
- The caption will reflect which channel you have chosen but you can edit it if you wish
- Click apply to view changes to the chart
- Click Done when you are finished

1-2-3-4-2 Monitor

- Opens the monitor window {1-2-1 Monitor (FC-Datalogit)}

1-2-4 Map

- Map logger.
  - 20 x 20 map that displays logged data in its appropriate N & P position.
    - These are the same positions as the data and settings in your fuel and ignition maps.
    - Only works for advanced settings and the auxiliary inputs.
    - Will display live data while creating a log
  - Choose the log item you wish to analyse. {1-2-4-2 Drop Down Channel Selector}
    - The most common item is Wideband O2.
  - Choose max, min, or average. Go for a drive... {1-2-4-3 Drop down}

- As you go up and down the revs and load, o2 values will appear and fill up their relevant positions in the map. Look over the map and then adjust the fuel map accordingly.
- Once you stop logging you can change the setting to a different item and the map logger will crunch the log and fill up the map with the new setting logged data.

1-2-4-1 File

- Drop down File menu
  - To access the Open log window
  - To open the drop down File menu, Left Click “File”, once

1-2-4-1-1 Open

- Open a saved log file for analysis
  - To Open a saved log file
  - To Open a saved log file, Left Click “Open”, once

1-2-4-2 Drop down Channel selector

- Drop down selector to select channel of log data to be analyzed
  - Only works for advanced settings and the auxiliary inputs.
    - Left click on arrow
    - Left click on channel. Wait for your computer to calculate the values in the map

1-2-4-3 Drop down

- Drop down selector to select method of analyzing log data
  - Choose max, min, average, number
    - The longer you drive, the bigger the log file therefore you get more samples of data for each position on the map.
    - Choose Max. Wait while your computer searches the log file to find the maximum value for each position in the map.

The values displayed in the map are peak values for each N & P position.

- Choose Min. Wait while your computer searches the log file to find the minimum value for each position in the map.
- Choose Average. Wait while your computer searches the log file and calculates the average value for each position in the map.
- Choose Number. Wait while your computer searches the log file and counts the number of samples for each position in the map. The values displayed in the map are total number of samples values for each N & P position.

- Left click on arrow
- Left click on method. Wait for your computer to calculate the values in the map

1-2-4-4 DPs (Decimal points)

- Select Decimal points for data in map
  - Click in text box and type in desired number of decimal points.

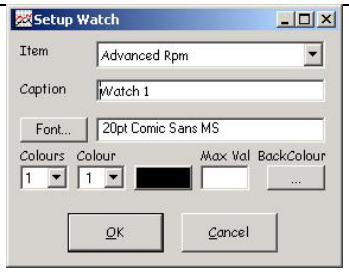
1-2-4-5 Map Trace

- Highlight current P and N cell in use in the map window
  - Shows you which cells are used for the current live engine condition so you know which ones to edit
    - Check the “Map Trace” check box at the Bottom of the Map Watcher

1-2-4-6 Ghost

- Highlights cells that the map tracer has used

1-2-5 Add Watch

- 

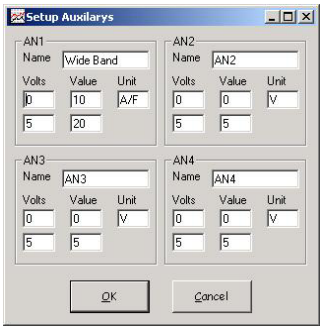
Click for Screen Capture {Setup Watch}
- A pop up "Watch" which allows you to monitor a channel while you are logging or reviewing a log
    - You can have as many Watches as you like
        - Choose "Add Watch" in the Window menu
        - A "Setup Watch" window will appear
        - Choose the Item (Channel) from the drop down window.
            - You can choose any channel that can be logged in the Monitor window
        - The caption will display the channel you have chosen. You can edit the channel name if you desire
        - Choose a font and font size
    - You can create a "red line" by assigning different text colours to different values
        - Colours "red line
            - Example; RPM, text black until 6000rpm then red until 8000rpm then blue
            - Click "3" colours in the drop down "colours" box
            - Select colour 1 in the drop down colour box, click the coloured box and select black, type 6000 in the "Max Val" box
            - Select colour 2 in the drop down colour box, click the coloured box and select red, type 8000 in the "Max Val" box
            - Select colour 3 in the drop down colour box, click the coloured box and select blue
    - You can drag the box and position it on your screen or drag it bigger or smaller
    - Once you have made a Watch if you want to alter it you can by double left clicking it to go back to the "Setup Watch" window

1-3 Setup

1-3-1 Com selection

- Com Port selection (Alt s)
  - If the FC-Box is plugged into your computer via a "Com port"
  - Allows you to choose between Communication Ports 1 ~ 8 depending on which one you have plugged the FC-Box into
    - To open the drop down Setup menu, Left Click "PFC", once
    - Click "Port" choose Com1 or Com2

1-3-2 Auxiliary

- 

Click for Screen Capture {Setup Aux}
    - AN inputs must be between 0~5 volts
- Set up Auxiliaries
  - There are 4 Auxiliary channels and each has it's own calibration depending on what you connect to it.
    - AN1, AN2, AN3 and AN4
  - If the output of the item you are logging is linear then you only need to enter two voltages to define the slope.
  - More complex outputs, where the output can be defined with a curve, require a formula (a polynomial) Click the Poly button on the AN window and enter the values for a, b and c. {1-3-2-1 Polynomial}
  - There is a separate scale factor box for each AN channel

- For example; if you want to connect a particular Wideband o2 sensor controller which has a linear output. You need to define two voltages and their relative A/F values.
- Perhaps at 0 volts the A/F is 10 and at 5 volts the A/F is 20.

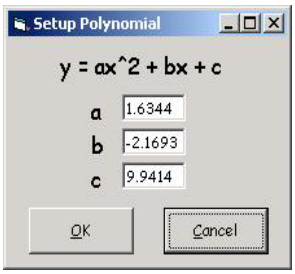
- Name the output units, in this case A/F.
- Name the item so you can find it in your log.
- Fill in the two voltages an A/Fs like so;

Name	Wide band	
Volts	Value	Unit
0	10	A/F
5	20	

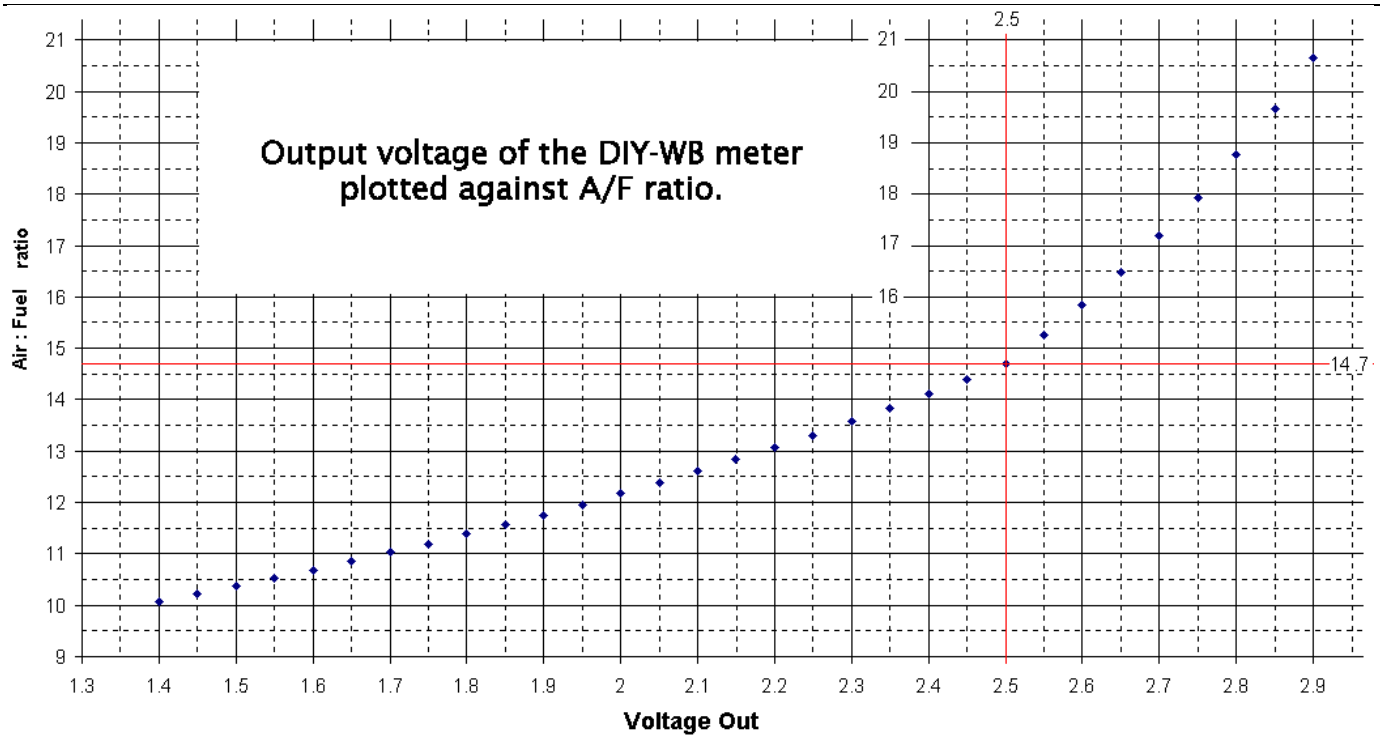
- In this case a voltage of 2.5V will display an A/F value of 15 (:1).

- You need to find the correct scale factor for the sensor you are using.

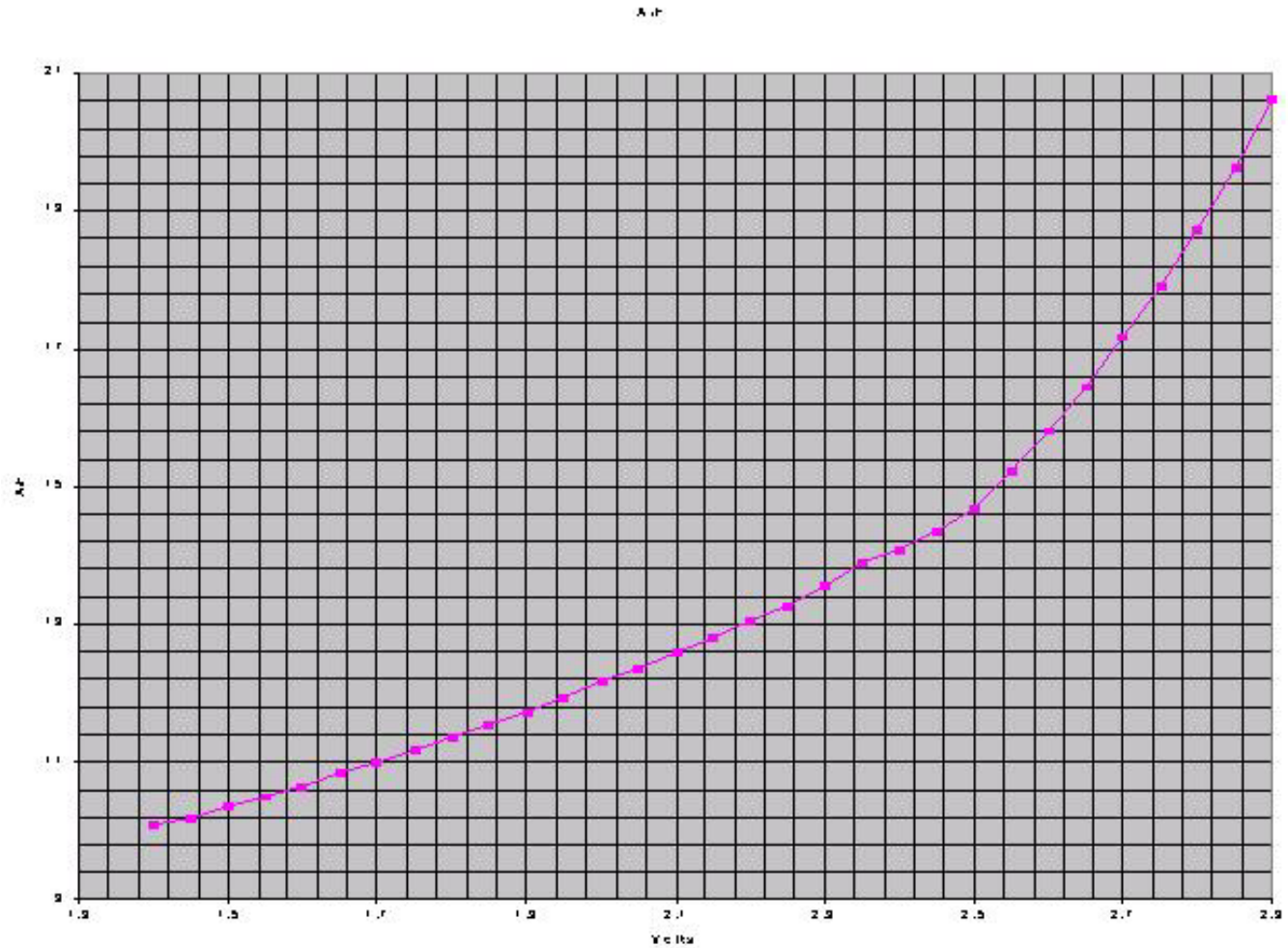
1-3-2-1 Polynomial (Setup)

- 

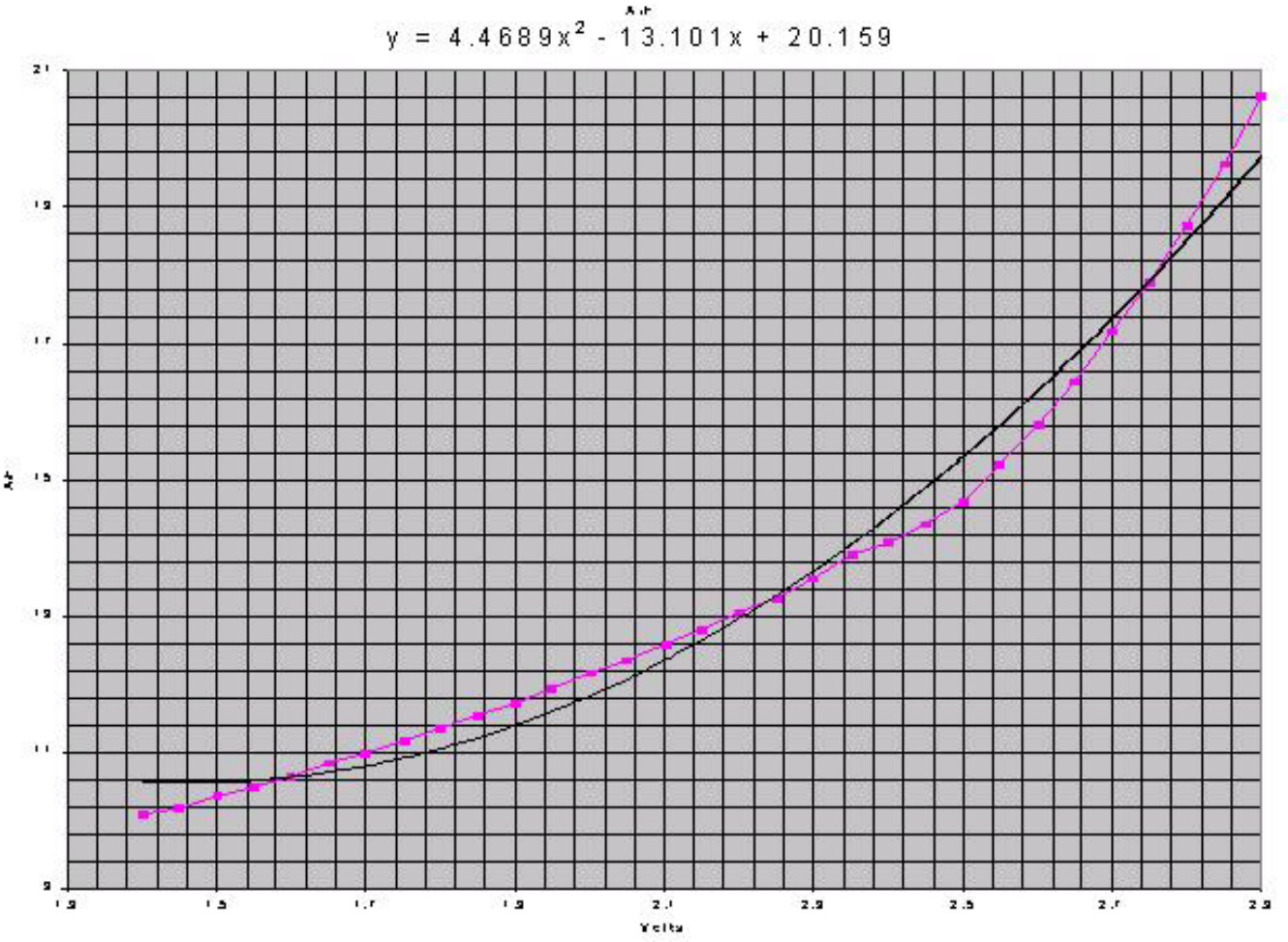
Click for Screen Capture {Setup Polynomial}
  - AN inputs must be between 0~5 volts
- Pop up window where you can input the values of a, b and c to define a curve to calibrate an AN input to be logged.
  - More complex inputs, ones that can be defined by a curve, require a formula (a polynomial).
    - Click the Poly button on the AN window and enter the values for a, b and c.
    - For example. DIY Wideband set up. The graph of A/F vs. Output voltage is not a straight line.



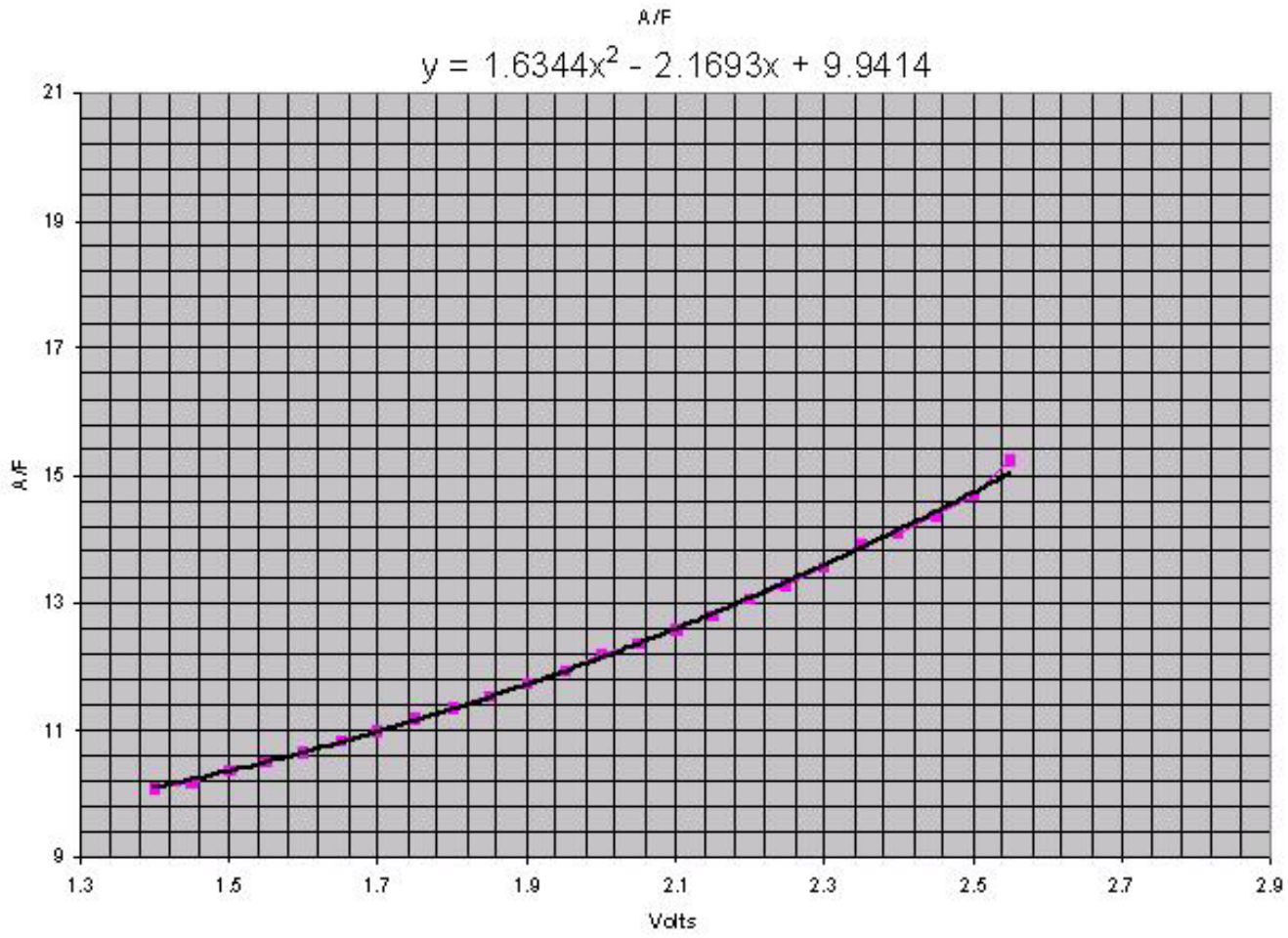
- The easiest way to create the polynomial is to plot the values from the graph in to excel then use the "trend line" function. The "trend line" function will create a "best fit" curve by using a polynomial formula.



- Above is a picture of an xy graph on the values from the DIY A/F vs. Voltage graph.
- Unfortunately the curve of this graph doesn't allow for a very nice polynomial.



- Above is a picture of the same values from the DIY A/F vs. Voltage and the resulting polynomial. The values for a, b and c are unusable because the curve they describe is not close enough to the actual curve of the plotted values.
- We are really only interested in the values that represent the A/F ratio between 10:1 ~15:1. If we limit the graph to that range and create the polynomial we get the following graph;



- This graph gave us the values we use for our DIY wideband.
- A=1.6344 b=2.1693 and C= 9.9414
- You can follow the same procedure to create a polynomial for other sensors.

1-4 Read All

- Copy ALL SETTINGS AND MAPS from a Power FC to FC-Edit (Alt r)
  - Read ALL SETTINGS AND MAPS held in the Power FC memory and copy ALL to the appropriate windows in FC-Edit so they can be saved and edited
    - Click the "Read All" Button on the Bottom of FC-Edit
      - There is no auto save so "Read All" will delete the current settings in FC-Edit
      - Save files or you will loose the data!

1-5 Write All

- Transfer ALL SETTINGS AND MAPS from FC-Edit to a Power FC (Alt a)
    - Copy ALL SETTINGS AND MAPS held in FC-Edit and write ALL to the Power FC memory
        - Click the "Write All" Button on the Bottom of FC-Edit
            - We suggest you "Read all" the settings and maps and save the file before you start editing
            - Save files or you will loose the data!
            - Before you "Write All", We suggest you Switch Off the engine and turn the ignition to "on"

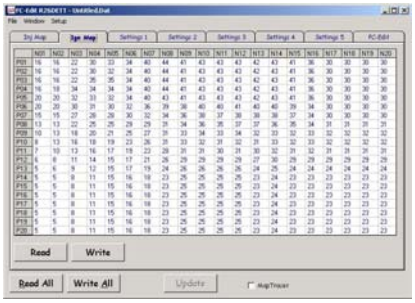
1-6 Update

- Transfer altered SETTINGS and INDIVIDUAL CELLS from FC-Edit to a Power FC (Alt u)
    - Copy SETTINGS and INDIVIDUAL CELLS from Maps that have changed recently and in FC-Edit and write them to the Power FC memory
        - Click the "Update" Button on the Bottom of FC-Edit
            - We suggest you "Read all" the settings and maps and save the file before you start editing
            - Save files or you will loose the data!
            - Before you "Update", We suggest you Switch Off the engine and turn the ignition to "on"

1-7 Map Tracer

- Highlight current P and N cell in use in the map windows
    - Shows you which cells are used for the current live engine condition so you know which ones to edit
        - Check the "Map Tracer" check box at the Bottom of FC-Edit

2- Fuel Injection Map.

-  Click for Screen Capture {INJ Map}
    - Altering values in the Fuel Injection Map
        - You can enter a new value directly into a cell (or a range of cells) in the map. Left click on the desired cell (left click drag, release, to select a range of cells) then type in the new value and hit “enter”.
        - You can increase or decrease the value of one cell (or a range of cells) by left clicking on a cell (left click drag, release, to select a range of cells),
            - “+” or “−“ The value will increase or decrease by a little
            - “Ctrl +” or “Ctrl −“ and the value will increase by a lot
        - You can copy (Alt c) or paste (Alt v) values to and from or around the map
            - P01~P20 {N-3 Pressure Value (Air Flow)} in the Fuel and Ign Maps
            - N01~N20; RPM. See {C-1 Map Reference}
                - Scales for P and N can be adjusted, see section {C-1 Map Reference} for more information

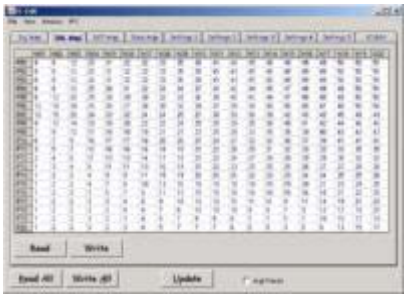
2-1 Read Injection Map

- Copy the Fuel INJ Map from a Power FC to FC-Edit
    - Read the Fuel INJ Map held in the Power FC memory and copy it to the “Injector Map” window in FC-Edit so it can be saved and edited
        - Click the “Injector Map” Tab to bring the Injector Map window to the front
        - Click the “Read” Button on the Injector Map window

2-2 Write Injection Map

- Transfer the Fuel Inj Map to a Power FC from FC-Edit
  - Copy the Fuel Inj Map from the "Injector Map" window in FC-Edit and write it in the Power FC memory
    - Click the "Injector Map" Tab to bring the Fuel Correction Map window to the front
    - Click the "Write" Button on the Fuel Correction Map window

3-Ignition Map.

-  Click for Screen Capture {IGN Map}
    - Altering values in the Ignition Map
        - You can enter a new value directly into a cell (or a range of cells) in the map. Left click on the desired cell (left click drag, release, to select a range of cells) then type in the new value and hit “enter”.
        - You can increase or decrease the value of one cell (or a range of cells) by left clicking on a cell (left click drag, release, to select a range of cells)
            - “+” or “–“ The value will increase or decrease by 1 deg
            - “Ctrl +” or “Ctrl –“ The value will increase or decrease by 10 degrees
        - You can copy (Alt c) or paste (Alt v) values to and from or around the map
            - P01~P20 {N-3 Pressure Value} in the Fuel and Ign Maps
            - N01~N20; RPM. See {C-1 Map Reference}
                - Scales for P and N can be adjusted, see section {C-1 Map Reference} for more information

3-1 Read IGN Map

- Copy the Ignition Map from a Power FC to FC-Edit
    - Read the Ignition Map held in the Power FC memory and copy it to the “IGN Map” window in FC-Edit so it can be saved and edited
        - Click the “IGN Map” Tab to bring the Ignition Map window to the front
        - Click the “Read” Button on the IGN Map window

3-2 Write IGN Map

- Transfer the IGN Map to a Power FC from FC-Edit
  - Copy the Ignition Map from the "IGN Map" window in FC-Edit and write it in the Power FC memory
    - Click the "IGN Map" Tab to bring the Ignition Map window to the front
    - Click the "Write" Button on the Ignition Map window

A- Settings One.

- Click for Screen Capture {Settings 1}
- Page one of the setting windows
  - The following settings are on "Settings 1" and can be edited and transferred between FC-Edit and the Power FC
    - Boost Control
    - Rev / Idle
    - Function Select
    - Air-Flow Warning
    - Injector Warning
    - Knock Warning
    - O2 Feedback
    - Map / Settings Protection
  - Click the "Settings 1" Tab to bring Page one of the setting windows to the front

A-1 Boost Control

- Boost Control Setting
  - Boost settings. There are 4 boost settings
    - You could set one for low boost (cruising?) and another for a higher boost (Overtaking?)
    - {A-3-1 Boost Control kit}
  - Use mouse to select which boost setting group you want to use, Click the appropriate switch
  - Or you can use the FD-Box Remote Boost Switch {E-3-2 Remote boost switch} to switch between settings 1 and 3 "on the fly"
  - Each setting has a separate boost setting and a duty setting
  - Boost; Boost value is the target boost value the internal Boost Control System tries to reach and hold
    - Click in the box and type in the desired Value

- {W-2 BOOST CUT}, Fuel cut will occur if boost reaches 0.25 Bar above the Target Boost value
- {W-3 Exhaust Temp Light flashing!} Flow exceeding the range of the stock air flow meter will cause the exhaust Temp Light to flash {N-1 Factory Air Flow meter}

- Duty; Duty setting determines the Waste Gate Control Solenoid's initial position (% opening) before the Boost Control system starts to control boost
  - Click in the box and type in the desired Value
    - If the number is too LOW, boost will lag and take more time to reach the desired Boost level. This will cause no damage but may make the car feel sluggish
    - If the number is too HIGH, boost may spike and over shoot the desired boost level before settling back down
    - A Boost Spike out of the range of your INJ and IGN maps may cause engine damage. Be careful!
    - Typical Settings

		Boost	Duty	
◉	1.	0.70	38	
○	2.	1.70	50	
○	3.	1.10	68	
○	4.	1.30	76	

A-2 Rev / Idle

- Adjust Engine speed
  - For all Rev Idle Settings, Choose the parameter and type in the new value
    - Use mouse to select the desired text box and type in the new value
      - Typical Settings

Rev Limit	8200
F/C 1	1250
F/C 1	1350
Idle 1	900

Idle 2	950

A-2-1 Rev Limit

- Max Rev Limit.
- If you use an auxiliary Rev Limiter, increase A-2-1 Rev limit to a higher value than you set the auxiliary Rev Limiter so Power FC Rev limiter doesn't function
    - The commander will only let you set the rev limiter to a maximum of 9999 rpm...
      With Datalogit you can set the rev limit to values grater than 9999.
    - If you set the limit to 12,000 the commander will show 2000 rpm because it can only display 4 numbers :)

A-2-2 F/C 1

- Deceleration Fuel cut recovery 1

A-2-3 F/C 2

- Deceleration Fuel cut recovery 2

A-2-4 Idle 1

- Idle 1

A-2-5 Idle 2

- Idle 2

A-3 Function Select

- Function Selection
    - Switch on or off the following Functions;
        - Boost control kit
        - Injector / Air flow Warning
        - Knock Warning
        - O2 F/B Control

- O2 sensor Reg

- Typical Settings

1. Boost cntl kit	
2. Injector / Airflow Warning	✓
3. Knock Warning	✓
4. O2 F/B Control	✓
5. O2 Sensor Reg	✓

A-3-1 Boost Control kit

- Switch Boost Control {A-1 Boost Control} on or off
  - Uncheck box for normal Turbo Control.
  - Check box for Single Turbo applications
    - Use mouse to Check or Uncheck the "Boost control kit" check box
      - Use; {A-1 Boost Control} to edit actual Boost Control Settings
      - Switch on if you have a single turbo and wish to use the Apexi single turbo boost control kit {N-4 Boost Control Kit for single turbo}

A-3-2 Injector / Air-Flow Warn

- Switch Injector Warning {W-4 Check Engine Light Flashing Slowly! Injector Duty / Map Warning} on or off
  - Check box for Injector Air-Flow Warning.
  - Uncheck box if you DON'T want Injector and Air-Flow Warning
    - Use mouse to Check or Uncheck the "Inj/AirF Warn" check box
      - Use; {A-6 Injector Warning} to edit actual Injector Warning Settings
      - Use; {A-5 Air-Flow Warning} to edit actual Injector Warning Settings

A-3-3 Knock Warn

- Switch Knock Warning {W-5 Check Engine Light Flashing Quickly! Knock Warning} on or off
    - Check box for Knock Warning. Uncheck box if you DON'T want Knock Warning
        - Use mouse to Check or Uncheck the "Knock Warn" check box
            - Use; {A-7 Knock Warning} to edit actual Knock Warning Settings
            - {N-2 Knock Value}
            - {W-5 Check Engine Light Flashing Quickly! Knock Warning}

A-3-4 O2 F/B Control

- Switch O2 Feedback Control on or off
    - Check box for O2 F/B Control.
    - Uncheck box if you DON'T want O2 F/B Control
        - Use mouse to Check or Uncheck the "O2 F/B Control" check box
            - Use; {A-8 O2 Feedback} to edit actual O2 Feedback Settings
            - Switch off if your O2 sensor is faulty or "missing"

A-3-5 O2 Sensor Reg

- Switch o2 Sensor Reg on or off
    - Check box for o2 Sensor Reg Control.
    - Uncheck box if you DON'T want o2 Sensor Reg Control
        - Use mouse to Check or Uncheck the "o2 Sensor Reg" check box

A-4 Version

- W-6 Transferring complete sets of map and setting data
- Program String
    - Displays which Model Engine the Power FC is designed to control
- Program Version

- Displays which program version is in the Power FC
  - Standard Settings

Program String	RB26DETT
Program Version	7.03B

A-5 Air-Flow Warning

- Adjust Air Flow Warning {W-4 Check Engine Light Flashing Slowly! Injector Duty / Map Warning} Thresh hold and Setting
  - Air Flow Warning can be switched off, see; {A-3-2 Injector / Air-Flow Warn}
  - Enter Air-Flow Warning Thresh hold % Value. Max % Value to turn on Check Engine Light
    - Use mouse to Enter desired Air-Flow Warning Thresh hold % Value Thresh hold in “Thresh” Box.
  - Enter Setting Value. Flashing Interval time for Check Engine Light
    - Use mouse to Enter desired Flashing Interval Time Value for Air-Flow Warning in “Setting” Box.
      - Typical setting

102(	Thresl
30	Settin

A-6 Injector Warning

- Adjust Injector Warning {W-4 Check Engine Light Flashing Slowly! Injector Duty / Map Warning} Thresh hold and Setting
  - Injector Warning can be switched off, see; {A-3-2 Injector / Air Flow Warn}
  - Enter Injector Warning Thresh hold % Value. Max % Value to turn on Check Engine Light
    - Use mouse to Enter desired Injector Warning Thresh hold % Value Thresh hold in “Thresh” Box.
  - Enter Setting Value. Flashing Interval time for Check Engine Light
    - Use mouse to Enter desired Flashing Interval Time Value for Injector Warning in “Setting” Box.

- Standard setting

98.(	Thresl
30	Settin

A-7 Knock Warning

- Adjust Knock Warning {W-5 Check Engine Light Flashing Quickly! Knock Warning} Thresh hold and Setting
    - Knock Warning can be switched off, see; {A-3-3 Knock Warn }
    - Enter Value Knock Warning Thresh hold Value. Peak Knock Value to turn on Check Engine Light
        - Use mouse to Enter desired Value for Knock Warning Thresh hold in “Thresh” Box.
            - {N-2 Knock Value}
    - Enter Setting Value. Flashing Interval time for Check Engine Light
        - Use mouse to Enter desired Flashing Interval Time Value for Knock Warning in “Setting” Box
            - Standard setting

60	Thresl
9	Settin

A-8 O2 Feedback

- Adjust O2 Feedback Control Setting
    - Supposedly Used to (self learn) fine tune mixture at idle for emission control
    - Is used for “Lean Cruise”. Leans mixture if TPS value doesn’t change for a while. Saves gas on long trips
        - O2 Feedback Control can be switched off, see; {A-3-4 O2 F/B Control}
    - Enter Setting Value
        - Use mouse to Enter desired O2 Feedback Control in “Setting” Box
            - Switch off if your O2 sensor is faulty or “missing”

- Standard Setting

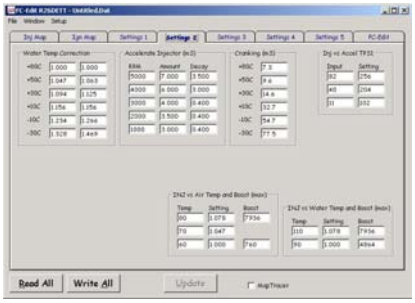
1.04'	Settin

A-9 Protect

- Protect or Un-Protect Maps and Settings
  - Check or Uncheck check boxes
    - Use mouse to Check the check box of the item you want to protect
    - Or Uncheck the items you want to edit
      - Stops unauthorized people from looking at or altering your settings with a commander
      - Won't stop unauthorized people from looking or adjusting if they have FC-Datalogit :)
      - Lets you un-protect Maps and Settings protected with Power Exel
      - The following items can be protected (or unprotected)
        - IGN Map; {3- Ignition Map}
        - INJ Map; {2- Injector Map}
        - Air Flow
        - Injector Settings;
        - Boost Settings;
        - Accelerate Settings;
        - Ign / Inj Settings;
        - Cranking;
        - Water Temp Settings;
        - Rev / Idle Settings;
      - Standard Setting

☐	IGN Map
☐	INJ Map
☐	Air Flow
☐	Injector
☐	Boost
☐	Accelerate
☐	IGN/INJ
☐	Cranking
☐	Water Temp
☐	Rev / Idle

B- Settings Two.

-  Click for Screen Capture {Settings 2}
- Page two of the setting windows
  - The following settings are on "Settings 2" and can be edited and transferred between FC-Edit and the Power FC
    - Water Temp Correction
    - Accelerate Injector Time
    - Cranking Time
    - Injection vs. Acceleration TPS1
    - Injection vs. Air Temp and boost
    - Injection vs. Water Temp and boost
  - Click the "Settings 2" Tab to bring Page one of the setting windows to the front

B-1 Water Temp Correction

- Adjust Fuel mixture for varying engine operation temperature as engine comes up to normal operating temp
  - For each temperature range, choose the parameter and type in the new value
    - Use mouse to select the desired text box and type in the new value
      - Standard Settings

+80C	1.000	1.000
+50C	1.047	1.094
+30C	1.141	1.297
+10C	1.250	1.500
-10C	1.391	1.688
-30C	1.594	2.000

B-2 Accelerate Injector Time

- Fuel enrichment for sudden acceleration (Like an accelerator pump)
    - For each RPM range, choose the parameter and type in the new value
        - Use mouse to select the desired text box and type in the new value
            - Standard Settings

RPM	Amount	Decay
5000	4.000	1.000
4000	4.500	1.200
3000	5.000	1.500
2000	4.500	1.200
1000	4.400	1.000

B-3 Cranking Time

- Injector on time while cranking the engine (ms)
    - For each temperature range, choose the parameter and type in the new value
        - Use mouse to select the desired text box and type in the new value
            - Standard Settings

+80	5.0
+50	8.0
+30	12.0
+10	25.0
-10	50.0
-30	98.0

B-4 Injection vs. Acceleration TPS1

-
    - Choose the parameter and type in the new value
        - Use mouse to select the desired text box and type in the new value
            - Standard Settings

Input	Setting
192	192
100	89
64	20

B-5 INJ vs. Air Temp & Boost (Max)

- Adjust Fuel mixture for varying Manifold air temperature and Boost
  - Choose the parameter and type in the new value
    - Use mouse to select the desired text box and type in the new value
      - Standard Settings

Temp	Settings	Boost
100	1.195	11776
70	1.117	
40	1.000	1160

B-6 INJ vs. Water Temp & Boost

- Adjust Fuel mixture for varying engine operation temperature around normal operating temp
  - For each temperature range, choose the parameter and type in the new value
    - Use mouse to select the desired text box and type in the new value
      - Standard Settings

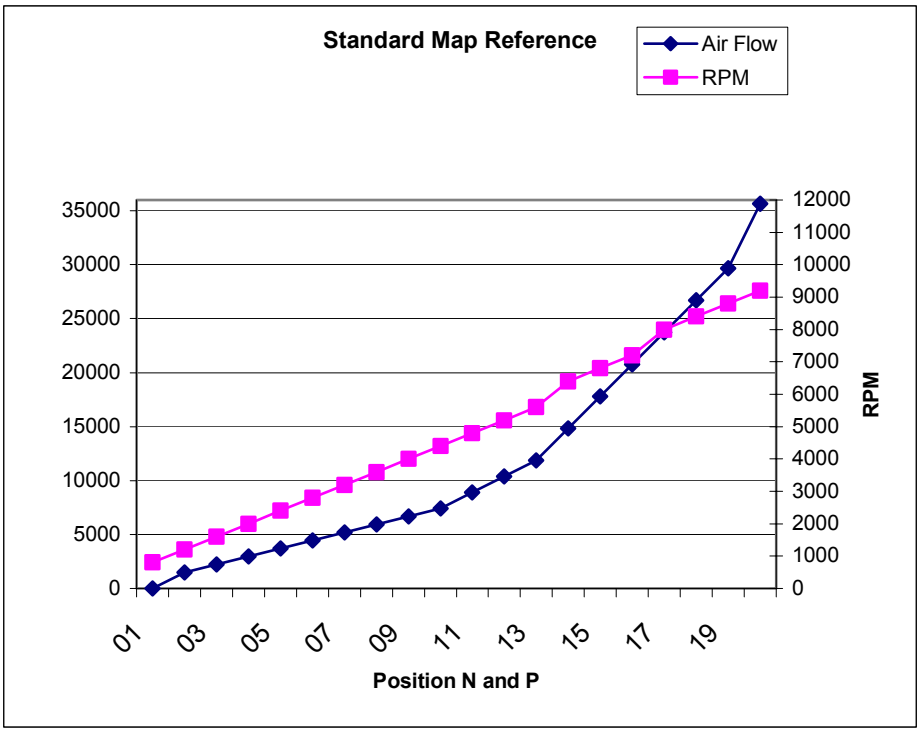
Temp	Adjustment	Boost
110	1.094	11776
95	1.000	7424

- C- Settings Three.

-  Click for Screen Capture {Settings 3}
- Page three of the setting windows
    - The following settings are on “Settings 3” and can be edited and transferred between FC-Edit and the Power FC
        - Map Reference
        - Air Flow
        - Click the “Settings 3” Tab to bring Page one of the setting windows to the front

C-1 Map Reference

- Calibrate P & N
    - This Table allows you to recalibrate the scale of P and N for the main maps
        - Enter desired values into the Map Reference Table
            - There is only one Map reverence Calibration table for both Fuel and Ignition maps
            - P01~P20 {N-3 Pressure Value (Air Flow)}
            - N01~N20; Engine RPM
            - Graph of the standard Map Reference Table Values;

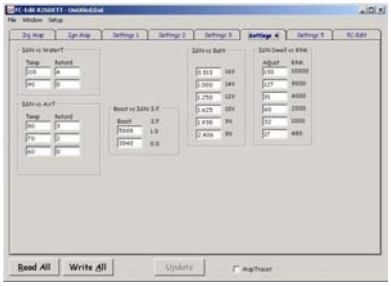


C-2 Air Flow

- Defines the relationship between Air Flow sensor voltage and actual Flow for various air flow meters
- 1. Normal for BCNR33 2. Normal for BNR32
    - Choose the type of sensor type in the values
        - Use mouse to select the desired text box and type in the new value
            - Typical Settings

				Voltage	
◉	1	1. BCNR33		0.64V	102.0
○	2	2. BNR32		1.28V	102.0
○	3	3. Power Intake		1.92V	109.0
○	4	4. 80 dia RB25		2.56V	107.0
○	5	5. 80 dia VG30		3.20V	107.0
				3.84V	107.0
				4.48V	107.0
				5.12V	107.0

D- Settings Four.

-  Click for Screen Capture {Settings 4}
- Page four of the setting windows
    - The following settings are on "Settings 4" and can be edited and transferred between FC-Edit and the Power FC
        - Ignition vs. Water Temp
        - Ignition vs. Air Temp
        - Boost vs. IGN S.F.
        - Ignition vs. Battery Voltage
        - Ignition Dwell vs. RPM
    - Click the "Settings 4" Tab to bring Page one of the setting windows to the front

D-1 Ignition vs. Water Temp

- Ignition vs. Water temperature, retard if the engine starts getting too hot
- For the standard setting; at 95 degrees C or less ignition timing is not corrected. From 95 ~ 110 timing is additionally retarded lineally to a max of 5 degrees. All temperatures over 110 degrees are also retarded 5 degrees
    - Choose the parameter and type in the new value
        - Use mouse to select the desired text box and type in the new value
            - Typical Settings

Temp	Retard
110	5
95	0

D-2 Ignition vs. Air Temp

- Ignition is retarded if Air temp is too high

- For the standard setting; at 50 degrees C or less ignition timing is not corrected. From 50 ~ 60 timing is retarded to a max of 3 degrees. From 60 ~ 70 timing is retarded to a max of 5 degrees. All temperatures over 70 degrees are also retarded 5 degrees
    - Choose the parameter and type in the new value
        - Use mouse to select the desired text box and type in the new value
            - Standard Settings

Temp	Retard
70	5
60	3
50	0

D-3 Boost vs. IGN S.F.

- Boost vs. Ignition scale factor
    - Choose the parameter and type in the new value
        - Use mouse to select the desired text box and type in the new value
            - Standard Settings

Boost	S.F.
8960	1.0
5888	0.0

D-4 Ignition vs. Battery Voltage

- Probably increases “dwell angle” if battery voltage is low
    - Choose the parameter and type in the new value
        - Use mouse to select the desired text box and type in the new value
            - Standard Settings

0.828	16V
1.000	14V
1.250	12V
1.797	10V

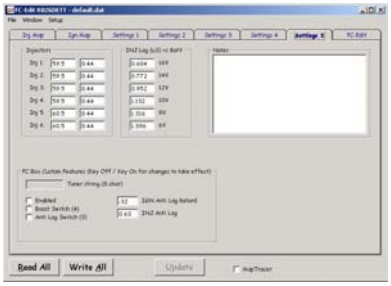
2.188	9V
3.891	8V

D-5 Ignition Dwell vs. RPM

- Adjusts dwell vs. RPM
  - Choose the parameter and type in the new value
    - Use mouse to select the desired text box and type in the new value
      - Standard Settings

Adjust	RPM
107	10000
86	8000
46	4000
25	2000
15	1000
10	480

E- Settings Five.



- Click for Screen Capture {Settings 5}
- Page five of the setting windows
  - The following settings are on "Settings 5" and can be edited and transferred between FC-Edit and the Power FC
    - Injectors
    - Injector lag (uS) vs BatV
    - FC-Box Custom Features
    - Notes
    - Click the "Settings 5" Tab to bring Page one of the setting windows to the front

E-1 Injectors

- Injector settings
  - Choose the parameter and type in the new value
    - Use mouse to select the desired text box and type in the new value
      - Standard injectors for GTR32/33 DETT are 444cc/min (Q) and have a lag of 0.772 ms
        - If you change the injectors, obtain the correct lag value from the injector manufacturer
        - Enter old size / new size ratio in "Inj size adjust"
        - Enter new lag – old lag in "Lag difference"
          - Example; new injectors 750cc/min lag 1.21ms
          - "Inj size adjust" = 444/750 = 59.2%
          - "Lag difference" = 1.21 – 0.77 = 0.44 ms
        - If you flow test the new injectors you can enter the correction for each individually
      - Settings for 750cc/min injectors with a lag of 1.21 ms

	Inj size adjust	Lag difference

Inj 1	0.592	0.44
Inj 2	0.592	0.44
Inj 3	0.592	0.44
Inj 4	0.592	0.44
Inj 5	0.592	0.44
Inj 6	0.592	0.44

E-2 Injector lag (uS) vs BatV

- Corrects injector lag time vs. battery volts
    - Choose the parameter and type in the new value
        - Use mouse to select the desired text box and type in the new value
            - Typical Settings

0.604	16V
0.772	14V
0.952	12V
1.132	10V
1.316	9V
1.396	8V

E-3 FC-Box Custom Features

- Enables and input settings for custom features
        - Check the enabled check box to activate the FC-Box special features

E-3-1 Anti lag ☺ (AKA Stutter box, Launch box, Pro start and "Bang bang")

- Spools up your turbo for a quick drag launch
    - Assuming you will use the standard clutch switch (+ arming switch)
        - Cut clutch switch wires
        - Connect one wire through an additional (arming) switch from the standard clutch switch to terminal "SW3" on the FC-Box {FC2 FC-Box 4 Switches}

        - The additional switch is used to turn anti lag on and off (arm the system). Mount this within easy reach of your driving position
    - Ground the other clutch switch wire
    - Check the enable Anti lag Switch (SW3) "check box" to enable Anti lag
    - Enter the amount of ignition retard you want in the "IGN Anti lag retard" text box
    - Enter the amount of extra fuel you want in the "INJ Anti lag" text box
    - Push the "Update" button on FC-Edit
    - Turn the ignition key off and then back on
    - Arm the system with the additional arming switch
    - When the clutch is depressed the FC-Box will retard the ignition and add fuel to the values you have entered in the appropriate text boxes. RPMs will drop so you need to depress the accelerator to compensate. More boost will be created
    - When the clutch is released the timing and fuel will return to normal
        - DANGER! Anti lag has a tendency to foul spark plugs
        - Extra heat will be generated in the exhaust manifold, which may shorten the life of turbos and the exhaust system CONSIDERABLY!
        - Anti lag creates A LOT OF NOISE! And possibly flames out the exhaust ☺

E-3-2 Remote boost switch

- Change boost settings "on the fly"
    - Check the Boost Switch (SW4) "check box" to enable the switch
    - You must connect a switch to terminal "SW4" on the FC-Box {FC2 FC-Box 4 Switches}
    - Connect the switch between "SW4" and ground
        - When switch is open boost setting one will be selected
        - When switch is closed boost setting two will be selected

- Switch will not function if a single turbo boost kit is in use
- If you enable the feature but don't connect a switch, {A-1 Boost Control} will be set to Boost setting one

E-3-3 Tuner String 8 characters (read only)

- Power Excel Dealer id
  - There is an 8 character string in the Power FC used for tuner details or something. We have used the string to store the FC-Box custom features data. There is a remote chance that a combination of characters used for an Excel dealer id could be the same as the characters we have use to enable the custom features.
    - We suggest you plug in the FC-Box then turn on the ignition (two clicks) and "Read All" before starting the engine. Check that a stray string hasn't enabled the custom features. If it has, disable it by unchecking the "enabled" check box and "Update".
    - Set the value of "IGN Anti lag retard" and "INJ Anti lag" to zero until you wish to use the function {E-3-1 Anti lag ☺}
      - When you are ready to use the custom features check the enable box
      - W-1 "Read all" the settings and maps and save the file!
      - Standard Settings

12345678	Tuner string (8 char)			
☐	Enabled		40	IGN Anti lag retard
☐	Boost Switch (SW4)		1.50	INJ Anti lag
☐	Anti lag switch (SW3)			

E-4 Notes

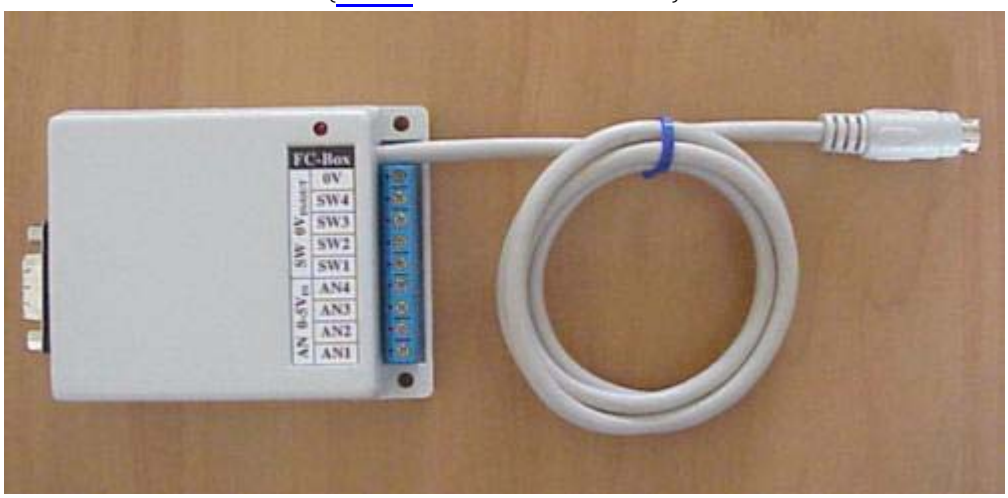
- W-6 Transferring complete sets of map and setting data
- Notes
  - This text box is where you type information you want to save with your settings
    - Just click in the box and type in what you like
      - The text will be saved with the other settings and Data

- If you wish to share your settings, you might like to list your mods in “notes text box” for the benefit of other users

F- FC-Box

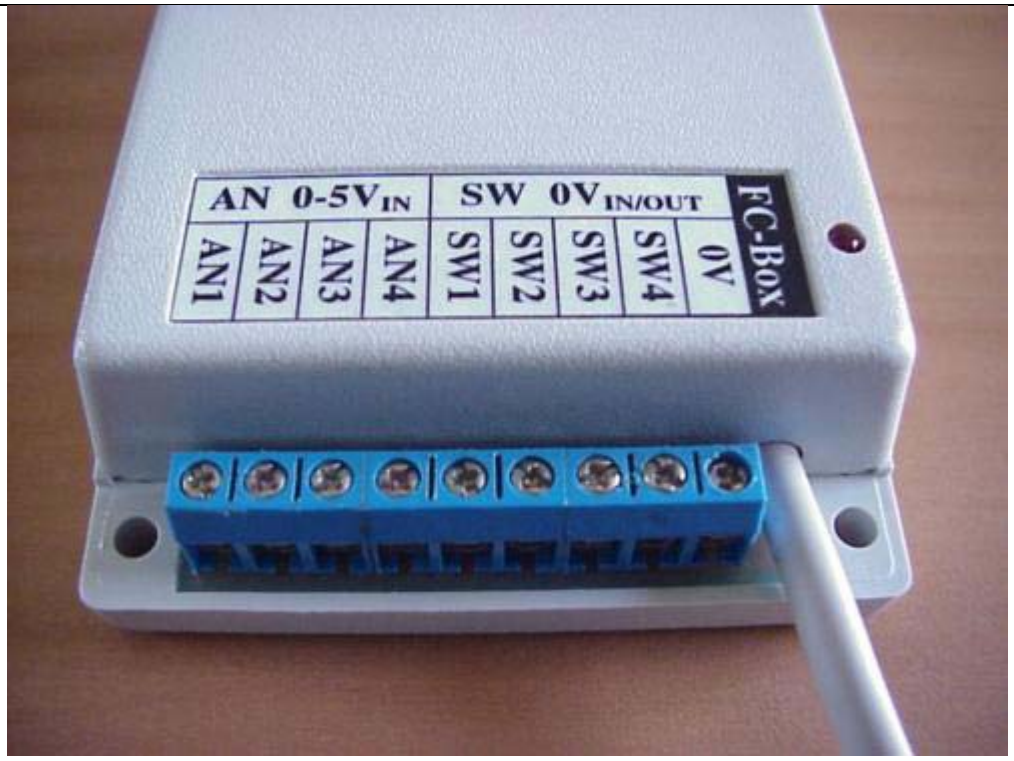
FC-Box

{FC1 FC-Box 4 Additional inputs}
{FC2 FC-Box 4 Switches}
{FC3 Mini din cable}



FC-Box

Left; mini din socket for Power FC Commander {FC4 Mini din Socket}
Right; Serial socket for Serial Cable or optional USB Serial Converter Cable to connect to a Laptop {FC5 Serial Socket}



- FC1 FC-Box 4 Additional inputs "AN 0-5V in"
  - See {1-3-1-3 Auxiliary AD Zone} for info on logging additional inputs
  - {1-4-2 Auxiliary (set up)} set up scale and values for A/d

- FC2 FC-Box 4 Switches "SW 0V in/out"
  - SW1; Switch one unused
  - SW2; Switch two unused
  - SW3; Switch three anti lag trigger
    - The standard clutch switch with an additional series switch to ground is appropriate
    - See {E-5-1 Anti lag ☺} for additional settings
  - SW4; Switch four is boost select switch
    - {E-5-2 Remote boost switch}
    - Connect the switch between SW 4 and ground
      - When switch is open boost setting one will be selected
      - When switch is closed boost setting two will be selected
      - Switch will not function if a single turbo boost kit is in use

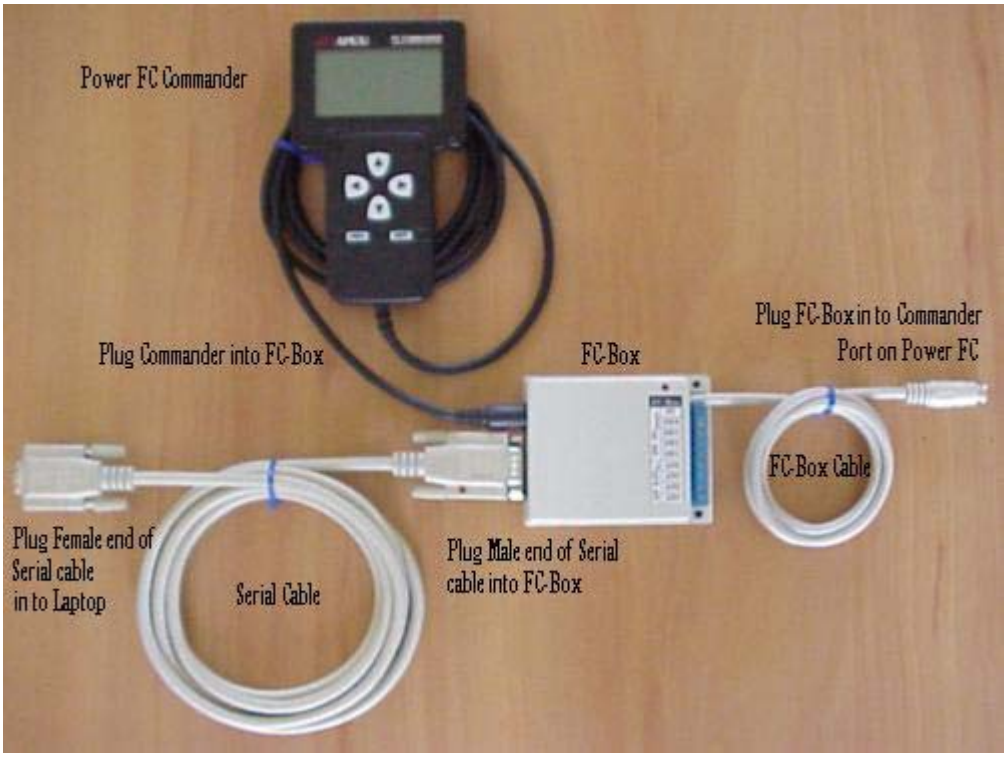
- FC3 Mini DIN cable

- Connect "Mini DIN cable" {F- FC-Box} to Power FC's Commander socket to allow FC-Datalogit to communicate with Power FC
  - Turn off the car's ignition
  - The Mini DIN plug is delicate so don't force it in to the socket
  - The plug only goes in one way. Turn the plug until it locates then push it in

- FC4 Mini DIN Socket
  - If you have a Power FC Commander, you can plug the Commander into the "Min DIN Socket" {F- FC-Box} on the FC-Box. The Commander will function if the FC-Box is plugged in to the Power FC
  - Note; Commander will pause while FC-Edit or FC-Datalogit is communication with the Power FC. Commander doesn't update while you are data logging
    - Turn off the car's ignition
    - The Mini DIN plug is delicate so don't force it in to the socket
    - The plug only goes in one way. Turn the plug until it locates then push it in

- FC5 Serial Socket
  - Serial socket {F- FC-Box} for Serial Cable or optional USB Serial Converter Cable to connect to a Laptop
    - Turn off the car's ignition
    - Plug the serial cable or optional USB Serial Converter Cable into the FC-Box serial cable connector
    - Secure plug with two captive screws

Datalogit FC-Box; Connection & starting the system



1. Install FC-Edit from the FC-Datalogit CD {FC-Datalogit CD} that came with the FC-Datalogit package
    - Insert the FC-Datalogit CD into your CD ROM drive
    - Open the FC-Datalogit CD
    - Double click "setup exe", follow the set-up instructions
2. Log on to the FC-Datalogit User E-Group, enter the files section and download the latest version of the FC-Datalogit software (FD-Edit) and user manual
3. Connect "Mini DIN cable" {F- FC-Box} to Power FC's Commander socket to allow FC-Datalogit to communicate with Power FC {FC3 Mini DIN cable}
4. Connect the Serial Cable (or optional USB Serial Converter Cable) to the FC-Box serial socket {FC5 Serial Socket} {F- FC-Box}. Connect the other end of the serial cable to a Laptop Serial socket or, if you use the optional USB Serial Converter Cable, plug the Serial

plug into the FC-Box serial socket and the USB plug into a laptop USB port

5. If you have and wish to use a Power FC Commander you can plug it into the Mini DIN socket on the FC-Box {FC4 Mini DIN Socket} {F- FC-Box}
6. Check that the connection between your laptop and the FC-Box is correct and secure. Check that the FC-Box is connected to the Power FC
7. Turn you car ignition to the "on" position. A small red light on the FC-Box will illuminate if the FC-Box is connected to the Power FC correctly while the car ignition is on
8. Turn on your Laptop
9. Run FC-Edit. You can use the version that came on the FC-Datalogit CD but we recommend you check the User E-Group for a newer version
10. {N-6 Interface not responding!}

N- Notes

N-1 Factory Air Flow meter

- If you plan to exceed the max flow or the stock meter then you need install a bigger sensor.
- {N-4 Boost Control Kit for single turbo}
- {W-3 Exhaust Temp Light flashing!}

N-2 Knock Value is Arbitrary.

- Sensor is just a simple microphone and picks up a range of frequencies.
- Values under 60 are considered "Safe". Smaller values are desirable :)
- {W-5 Check Engine Light Flashing Quickly! Knock Warning}
- Knock Warning can be switched off, see; {A-3-3 Knock Warn}
- Or Thresh hold adjusted, see; {A-7 Knock Warning}

N-3 Pressure (Air Flow) Value in the Fuel and Ign Maps

- P01~P20; Air Flow.
- Scales for P and N can be adjusted, {C-1 Map Reference}

N-4 Boost Control Kit for single turbo

- Switch on {A-3-1 Boost control kit}
- If you are using a single turbo and are relying on the pressure of a waste gate spring to control boost, make sure you set the boost in setting group "1" from {A-1 Boost Control} to a value higher than the waste gate spring allows, so you don't hit the Power FC Over Boost Fuel Cut {W-2 BOOST CUT}

N-5 Mac Laptop & FC-Datalogit

- FC-Datalogit take no responsibility for the accuracy of the following installation and procedure
- Mac installation and procedure created by Michel, Thank you Michel
- If anyone needs any assistance, feel free to contact me. rx7tt95@aol.com

- First, you'll need a Mac laptop, at the very least 400mhz Powerbook (Bronze Keyboard, otherwise known as Lombard, or the later Pismo model with built-in Firewire). Any of the newer I-books (magnesium case, all white) should work even better. My system configuration is: 400mhz G3, 320mb of ram, and a 6Gig hard drive and a swappable SuperDrive so I can read floppies. Virtual PC requires at least 192mb to run in OSX, 128mb in OS9. The Serial to USB adapter comes with it's own driver, on a 1.44mb floppy. You will have to either download the disk to a hard drive and transfer it somehow, or purchase your own adapter that utilizes a more modern disk to store the driver on. Most Wintel-based PC's still come with a floppy drive.
- Second, I'd recommend that you have OSX installed (10.1) instead of OS9.2. Why? Virtual PC version 5.0 (what I recommend) is much snappier on OSX and has more functionality. You loose a bit of function when running in "classic" mode. However, it'll work with both.
- Third, you'll need Virtual PC 5.0 with either Windows98 or Win2000. I recommend Windows98 as it's less problematic than Win2000 and it's a bit cheaper to boot. Virtual PC is pre-packaged with either one, or several other Windows packages for that matter.
- Fourth, you will need a serial to USB adapter. I'd imagine you could purchase these at most larger computer stores. (The FC-Datalogit optional version requires either Windows 98 or Windows 2000. See "Third")
- Fifth, you'll need FC_Edit v1.04 (or later) as it has settings for Com1-Com4. (Com is short for communications port in Windows 98) For some reason, Windows 98 assigns Com1 and Com2 to something else (it may be Virtual PC doing this too, or the Mac OS). The point being that in v1.03 of FC_Edit, you only had the choice of Com1 or Com2, which are taken. In v1.04, there are two additional Com ports, 3 and 4.
- After you have all of the above, you'll need to install Virtual PC on your Mac. Follow the instructions and read the manual first, as there's some new lingo. I named my virtual pc engine "FC_Edit". I would recommend that you choose the easy install option. Once installed, quit the installer and go through the steps. There's one section of the set-up where it allows you to choose the "parameters" of your Virtual PC. Think of it like you're actually setting up
  preferences on a PC. In it, it'll allow you to choose how much RAM is allocated to the program. Give it all the ram you can, as it'll speed things up a bit. I believe I'm running a 144mb allocation of RAM, per the Virtual PC program. Install the FC_Edit program and then update it with v1.04 available from the Datalogit web site. Simply download it and drop the program into the "Program Files" located on your "C" drive (hard drive to you and me) and

then in FC Edit. It looks something like this; C:¥Program Files¥FCEdit. I then dragged it to the Windows Desktop, which created an automatic shortcut so you don't have to go digging on the hard drive.

For the following, you must do it just as I specify (and the adapter directions specify). Once you have Virtual PC installed and running, shut down Windows 98 and Virtual PC. Install the Serial to USB adapter in USB port #2 (#1 may work as well). Once it's hooked up, boot Virtual PC and your "virtual" machine (whatever you named it), which will launch Windows 98. Once it's up and running, it'll auto detect a new device and search for the appropriate driver. The install new hardware program will launch and you should insert the floppy (or CD), which contains the driver. Follow the instructions and complete the installation.

Once the driver is installed, and with the adapter still plugged into the back of the computer, connect the serial end to the Datalogit box with the car off. Turn the car on and launch FC_Edit, which you should have installed already. It may say "Error opening Com2" or something stupid like that. Click "ok". You'll have to go under the menu at the top to "Setup" and choose Com3. Once that's done, try "reading" your PFC. If you get an "interface not responding" try quitting FC_Edit and launching it again. If that doesn't work, shut down Windows 98 and restart it with everything plugged in and the car off. Once it's fully boots, turn the car on to accessory (engine not running) and launch FC_Edit again. If that doesn't work yet again, go down to the USB symbol at the bottom of Virtual PC and click on it, then USB Settings. Once the "Settings" window for your Virtual PC pop up, click on USB and make sure the driver for the Serial to USB adapter is enabled as well as the USB itself. Once it's enabled, close the window and you should be able to read and write to the Power FC and to of course, Datalog!

N-6 Interface not responding!

- "Interface not responding"! This is a common error message caused by the following;
    - Incorrect Com port selected. FC-Edit communicates with the FC-Box via a Serial or USB cable. The serial or USB cable is plugged into a 'Serial port' or 'USB port' on your computer. The ports (sockets) are usually on the back of your laptop. 'Com port' is computer term for all

the different types of sockets on the back of your computer. There are many different sockets and different types of laptops give them different names. Com 1, Com 2 etc, FC-Edit needs to be 'told' which one it should use to communicate with the FC-Box. Most computers use Com 1 for the serial socket so if you are using the serial cable 'Com 1' should be correct. If you get the "Interface not responding" message, try changing the Com port number to Com 2 or Com 3 etc, in FC-Edit:

- 1-3 Setup
  - 1-3-1 Port
    - Com 1 ~8

- The other end of the serial or USB cable is not connected to the FC-Box correctly
- FC-Box mini DIN cable is not connected to Power FC correctly
  - Make sure the light on the FC-Box is 'on' when the car ignition is 'on' or the engine is running.
- Car not 'on' or running!
  - Power FC must have power before the FC-Box gets power
- Lost connection between Power FC and Laptop
  - Sometimes the signal between the Power FC and the laptop is just 'lost'
  - Check the connections and restart FC-Edit
- Opening FC-Edit twice (a second session, while the interface is already in session)

T-Tips

T-1 To view the settings in two files simultaneously

- Open two sessions of FC-Edit
- Opening a session without the interface plugged in (or a second session, while the interface is already in session) will cause an "Interface not responding!" prompt, in this case ignore and click OK
- Opening a second session will cause an "Error opening Com1" prompt, in this case ignore and click OK
- Open one of the files you want to compare in one FC-Edit session and the other file in the other session
- Use Compare on the first session to find which settings are different, then switch between the two sessions of FC-Edit (Alt Tab) to view the different values
- OR size the two session windows so you can see both at the same time

○ W- WARNING!

W-1 “Read all”

- We suggest you “Read all” the settings and maps and save the file before you start editing
- “Read all” the settings before you enable the FC-Box special features.
- See {E-3-3 Tuner String} for a special message

W-2 BOOST CUT…

- Fuel cut will occur if boost reaches 0.25 Bar above the Boost value set in {A-1 Boost Control}

W-3 Exhaust Temp Light flashing!

- Over 1.2 Bar the factory Map sensor will not be accurate. {N-1 Factory Boost Sensor}
- Exhaust Temp Light will flash when Boost is over 1.1 Bar

W-4 Check Engine Light Flashing slowly! Injector Duty / Air flow Warning

- If Injector on time is over 98% or the Air flow sensor is over 5V,
- Check Engine Light will Flash in 0.5 sec intervals.
- Injector Warning can be switched off, see; {A-3-2 Injector / Air Flow Warn}
- Or Thresh hold adjusted, see; {A-6 Injector Warning}

W-5 Check Engine Light Flashing Quickly! Knock Warning

- If Detonation is over “60” Check Engine Light will Flash in 0.1 sec intervals three times

- Knock Warning can be switched off, see; {A-3-3 Knock Warn}
- Or Thresh hold adjusted, see; {A-7 Knock Warning}
- {N-2 Knock Value}

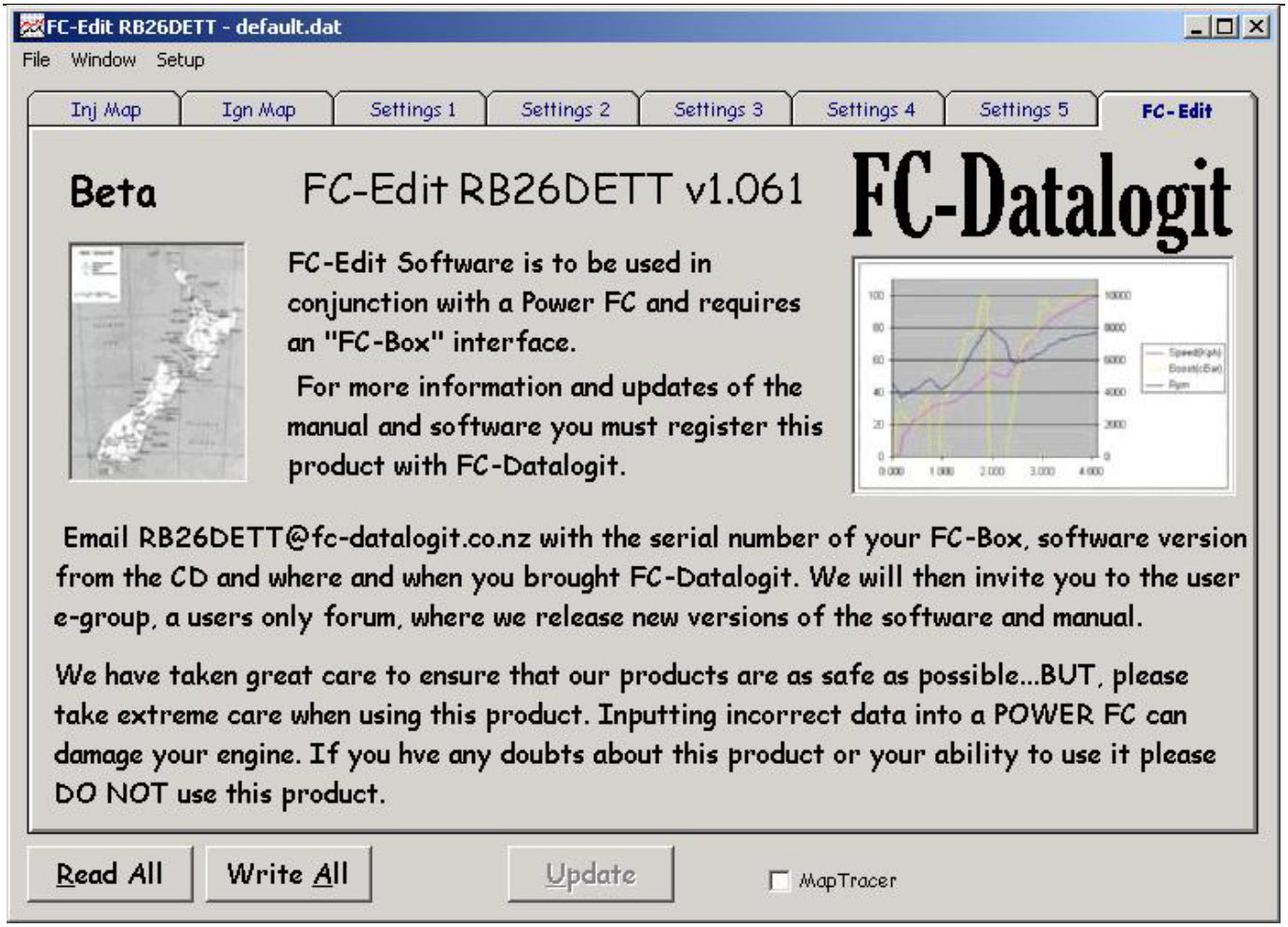
W-6 Transferring complete sets of map and setting data between a pair of Power FCs with different version numbers could be dangerous!

- Check with the E-Group to see if the versions are compatible.
- If they are not, Setting data could be written to the wrong location in FC-Edit and if up loaded would allow the Power FC to use incorrect settings.
- This may cause ENGINE DAMAGE!
- To allow other users to identify which version the setting data was copied from, please write the Program String and version number from "Version" on "settings page 1" {A-4 Version } into the "notes" {E-4 Notes} text box on "Settings page 5".

Z-FC-Edit Screen Captures

Pages contain standard Power FC data which may or may not be applicable to your vehicle

- FC-Edit Cover Page
- INJ Map
- IGN Map
- Settings 1
- Settings 2
- Settings 3
- Settings 4
- Settings 5
- Monitor Window
- FC-Datalogit Chart window
- Graph windows “3D View”
  - INJ
  - IGN
- Set-up Watch
- Set-up Chart
- Set-up Map Watcher
- Set-up Aux
- Set-up Polynomial


FC-Edit RB26DETT - default.dat
File
Window
Setup
Inj Map
Ign Map
Settings 1
Settings 2
Settings 3
Settings 4
Settings 5
FC-Edit
Beta
FC-Edit RB26DETT v1.061
FC-Datalogit
FC-Edit Software is to be used in conjunction with a Power FC and requires an "FC-Box" interface.
For more information and updates of the manual and software you must register this product with FC-Datalogit.
Email RB26DETT@fc-datalogit.co.nz with the serial number of your FC-Box, software version from the CD and where and when you brought FC-Datalogit. We will then invite you to the user e-group, a users only forum, where we release new versions of the software and manual.
We have taken great care to ensure that our products are as safe as possible...BUT, please take extreme care when using this product. Inputting incorrect data into a POWER FC can damage your engine. If you hve any doubts about this product or your ability to use it please DO NOT use this product.
Read All
Write All
Update
MapTracer

FC-Edit R26DETT - Untitled.Dat

File Window Setup

Inj Map | Ign Map | Settings 1 | Settings 2 | Settings 3 | Settings 4 | Settings 5 | FC-Edit

	N01	N02	N03	N04	N05	N06	N07	N08	N09	N10	N11	N12	N13	N14	N15	N16	N17	N18	N19	N20
P01	0.801	0.801	0.801	0.801	0.801	0.801	0.801	0.801	1.039	1.133	1.152	1.172	1.172	1.180	1.184	1.258	1.293	1.293	1.293	1.293
P02	0.801	0.602	0.602	0.602	0.602	0.602	0.602	0.602	1.039	1.133	1.152	1.172	1.172	1.180	1.184	1.258	1.293	1.293	1.293	1.293
P03	0.602	0.602	0.602	0.602	0.602	0.602	0.602	0.602	1.039	1.133	1.152	1.172	1.172	1.180	1.184	1.258	1.293	1.293	1.293	1.293
P04	0.500	0.551	0.602	0.602	0.602	0.602	0.602	0.602	1.047	1.145	1.164	1.184	1.184	1.184	1.191	1.258	1.293	1.293	1.293	1.293
P05	0.500	0.551	0.602	0.602	0.602	0.602	0.602	0.602	1.109	1.164	1.184	1.203	1.203	1.203	1.219	1.258	1.293	1.293	1.293	1.293
P06	0.500	0.551	0.699	0.699	0.602	0.602	0.602	0.602	1.137	1.184	1.203	1.215	1.223	1.223	1.238	1.258	1.289	1.289	1.289	1.289
P07	0.602	0.699	0.699	0.602	0.602	0.602	0.602	0.652	1.148	1.199	1.215	1.215	1.223	1.242	1.254	1.258	1.289	1.289	1.289	1.289
P08	1.078	0.652	0.652	0.602	0.602	0.602	0.602	0.699	1.156	1.199	1.215	1.215	1.223	1.242	1.254	1.258	1.281	1.281	1.281	1.281
P09	1.117	0.699	0.699	0.699	0.699	0.699	0.750	1.148	1.156	1.199	1.215	1.215	1.223	1.242	1.254	1.258	1.273	1.273	1.273	1.273
P10	1.117	1.000	1.000	1.000	1.000	1.207	1.145	1.148	1.156	1.199	1.215	1.215	1.223	1.242	1.254	1.258	1.273	1.273	1.273	1.273
P11	1.117	1.117	1.117	1.117	1.137	1.207	1.145	1.148	1.156	1.199	1.215	1.215	1.223	1.242	1.254	1.258	1.273	1.273	1.273	1.273
P12	1.117	1.117	1.117	1.117	1.137	1.207	1.145	1.148	1.156	1.199	1.215	1.215	1.223	1.242	1.254	1.258	1.273	1.273	1.273	1.273
P13	1.117	1.117	1.117	1.117	1.137	1.207	1.145	1.148	1.156	1.199	1.215	1.215	1.223	1.242	1.254	1.258	1.273	1.273	1.273	1.273
P14	1.117	1.117	1.117	1.117	1.137	1.207	1.145	1.148	1.156	1.199	1.215	1.215	1.223	1.242	1.254	1.258	1.273	1.273	1.273	1.273
P15	1.117	1.117	1.117	1.117	1.137	1.207	1.145	1.148	1.156	1.199	1.215	1.215	1.223	1.242	1.254	1.258	1.273	1.273	1.273	1.273
P16	1.117	1.117	1.117	1.117	1.137	1.207	1.145	1.148	1.156	1.199	1.215	1.215	1.223	1.242	1.254	1.258	1.273	1.273	1.273	1.273
P17	1.117	1.117	1.117	1.117	1.137	1.207	1.145	1.148	1.156	1.199	1.215	1.215	1.223	1.242	1.254	1.258	1.273	1.273	1.273	1.273
P18	1.117	1.117	1.117	1.117	1.137	1.207	1.145	1.148	1.156	1.199	1.215	1.215	1.223	1.242	1.254	1.258	1.273	1.273	1.273	1.273
P19	1.117	1.117	1.117	1.117	1.137	1.207	1.145	1.148	1.156	1.199	1.215	1.215	1.223	1.242	1.254	1.258	1.273	1.273	1.273	1.273
P20	1.117	1.117	1.117	1.117	1.137	1.207	1.145	1.148	1.156	1.199	1.215	1.215	1.223	1.242	1.254	1.258	1.273	1.273	1.273	1.273

Read | Write

Read All | Write All | Update | MapTracer

FC-Edit R26DETT - Untitled.Dat

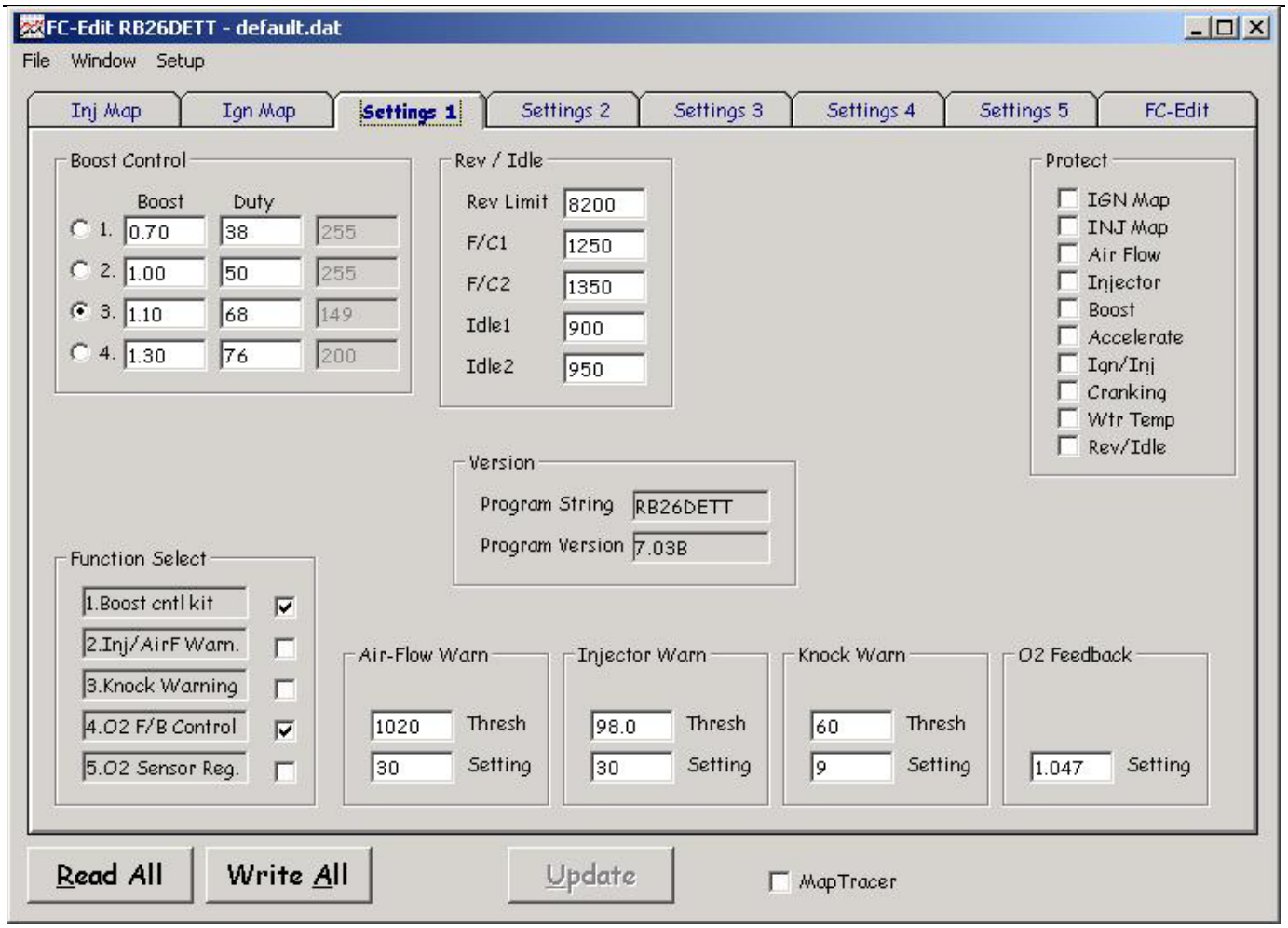
File Window Setup

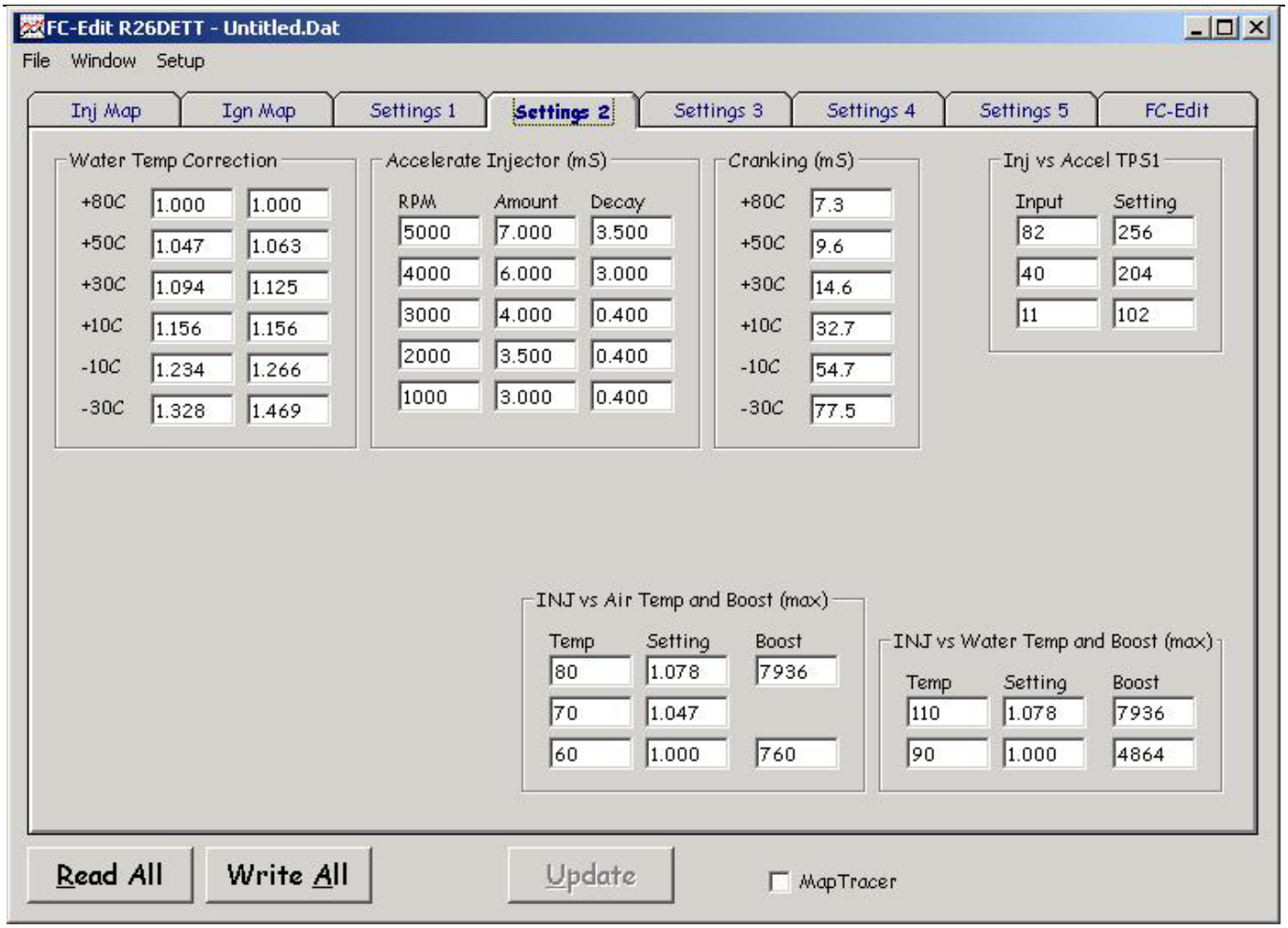
Inj Map | Ign Map | Settings 1 | Settings 2 | Settings 3 | Settings 4 | Settings 5 | FC-Edit

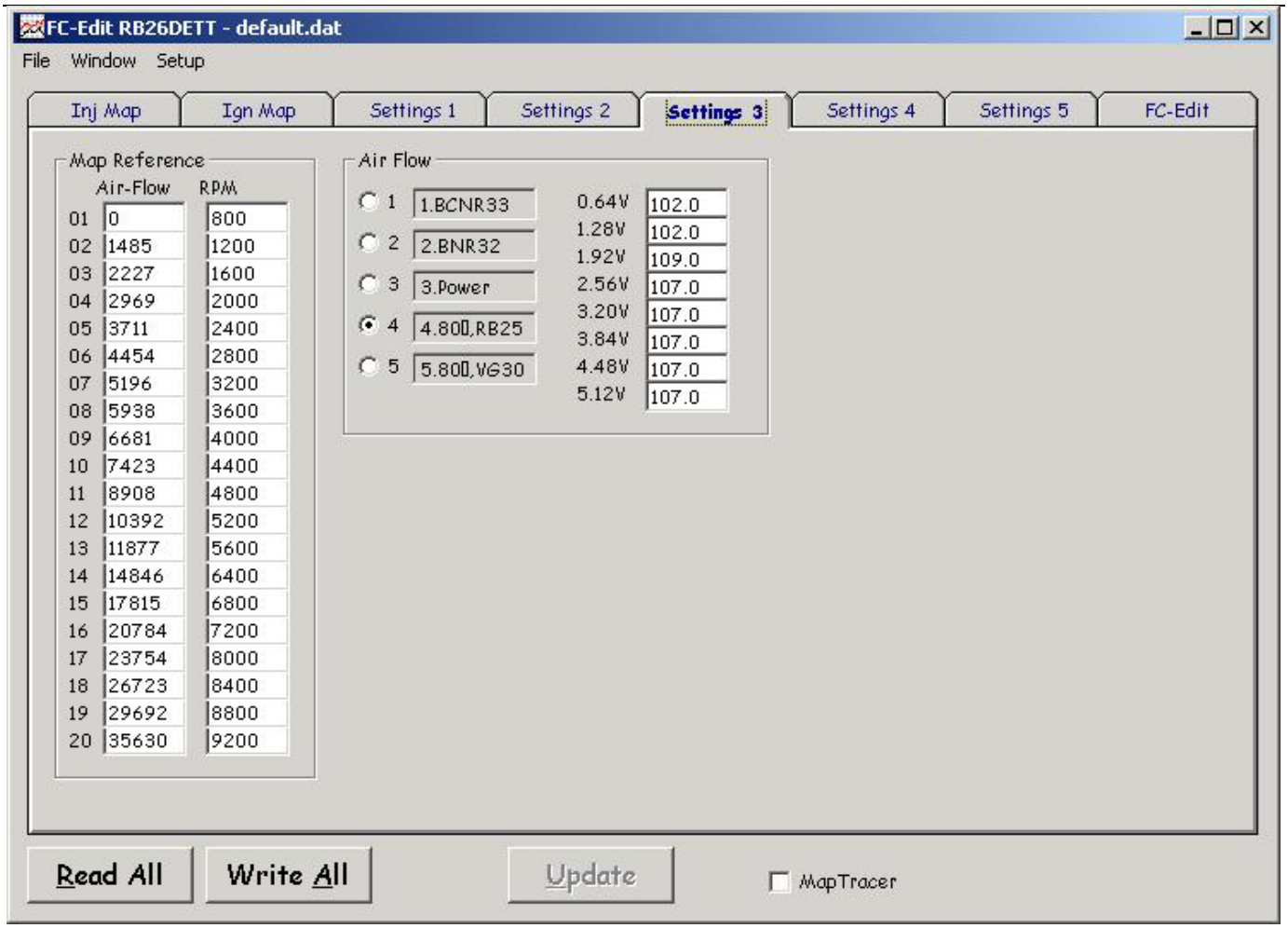
	N01	N02	N03	N04	N05	N06	N07	N08	N09	N10	N11	N12	N13	N14	N15	N16	N17	N18	N19	N20
P01	16	16	22	30	33	34	40	44	41	43	43	43	42	43	41	36	30	30	30	30
P02	16	16	22	30	32	34	40	44	41	43	43	43	42	43	41	36	30	30	30	30
P03	16	16	22	35	35	34	40	44	41	43	43	43	42	43	41	36	30	30	30	30
P04	16	18	34	34	34	34	40	44	41	43	43	43	42	43	41	36	30	30	30	30
P05	20	20	32	33	32	34	40	43	41	43	43	43	42	43	41	36	30	30	30	30
P06	20	20	30	31	30	32	36	39	38	40	40	41	40	40	39	34	30	30	30	30
P07	15	15	27	28	28	30	32	34	36	38	37	38	38	38	37	34	30	30	30	30
P08	13	13	22	25	25	29	29	31	34	36	35	37	37	36	35	34	31	31	31	31
P09	10	13	18	20	21	25	27	31	33	34	33	34	32	33	32	33	32	32	32	32
P10	8	13	16	18	19	23	26	31	33	32	31	32	31	33	32	33	32	32	32	32
P11	7	10	13	16	17	19	23	28	31	31	30	31	30	32	31	32	31	31	31	31
P12	6	8	11	14	15	17	21	26	29	29	29	29	27	30	29	29	29	29	29	29
P13	5	6	9	12	15	17	19	24	26	26	26	26	24	25	24	24	24	24	24	24
P14	5	5	8	11	15	16	18	23	25	25	25	25	23	24	23	23	23	23	23	23
P15	5	5	8	11	15	16	18	23	25	25	25	25	23	24	23	23	23	23	23	23
P16	5	5	8	11	15	16	18	23	25	25	25	25	23	24	23	23	23	23	23	23
P17	5	5	8	11	15	16	18	23	25	25	25	25	23	24	23	23	23	23	23	23
P18	5	5	8	11	15	16	18	23	25	25	25	25	23	24	23	23	23	23	23	23
P19	5	5	8	11	15	16	18	23	25	25	25	25	23	24	23	23	23	23	23	23
P20	5	5	8	11	15	16	18	23	25	25	25	25	23	24	23	23	23	23	23	23

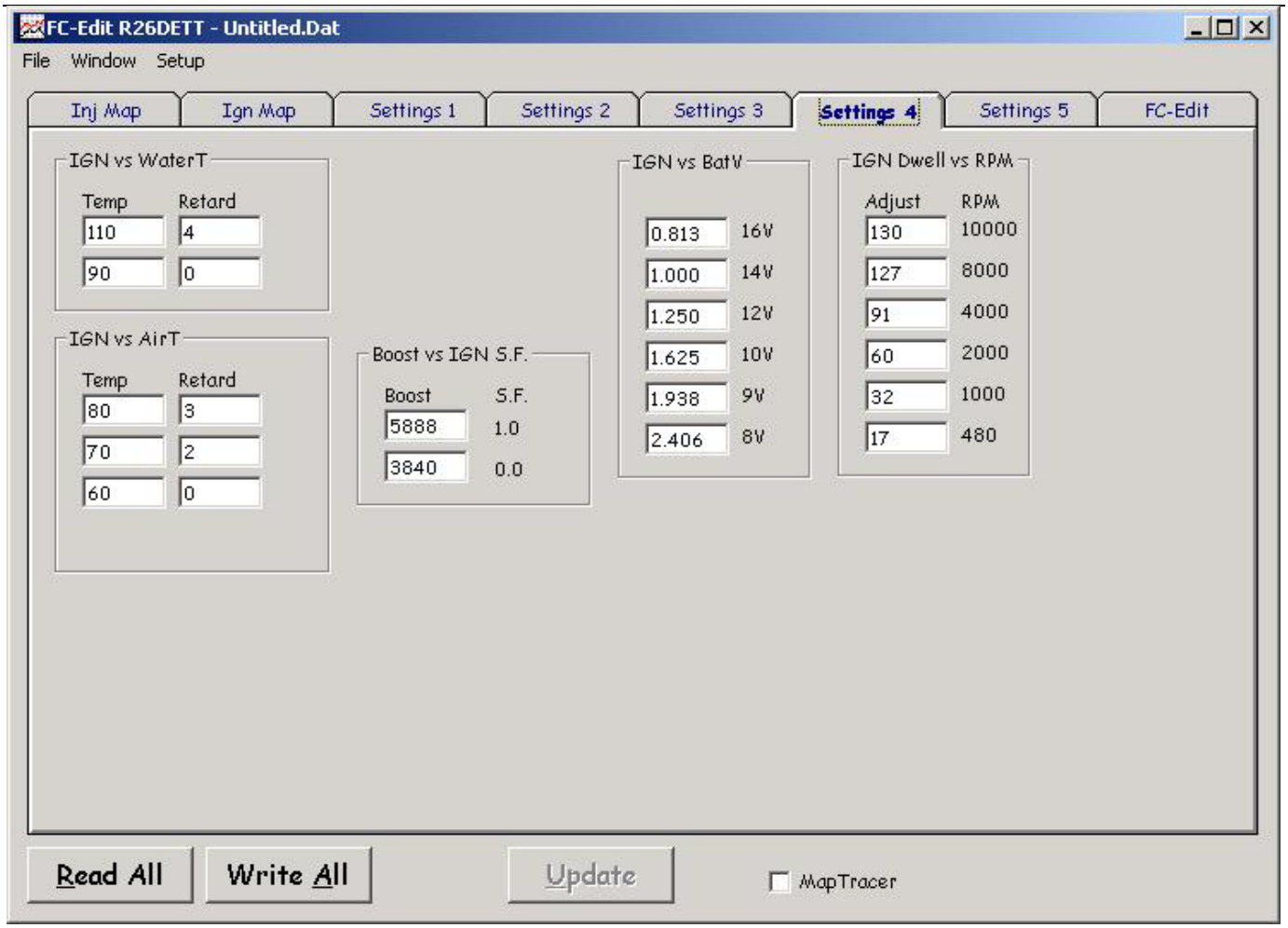
Read | Write

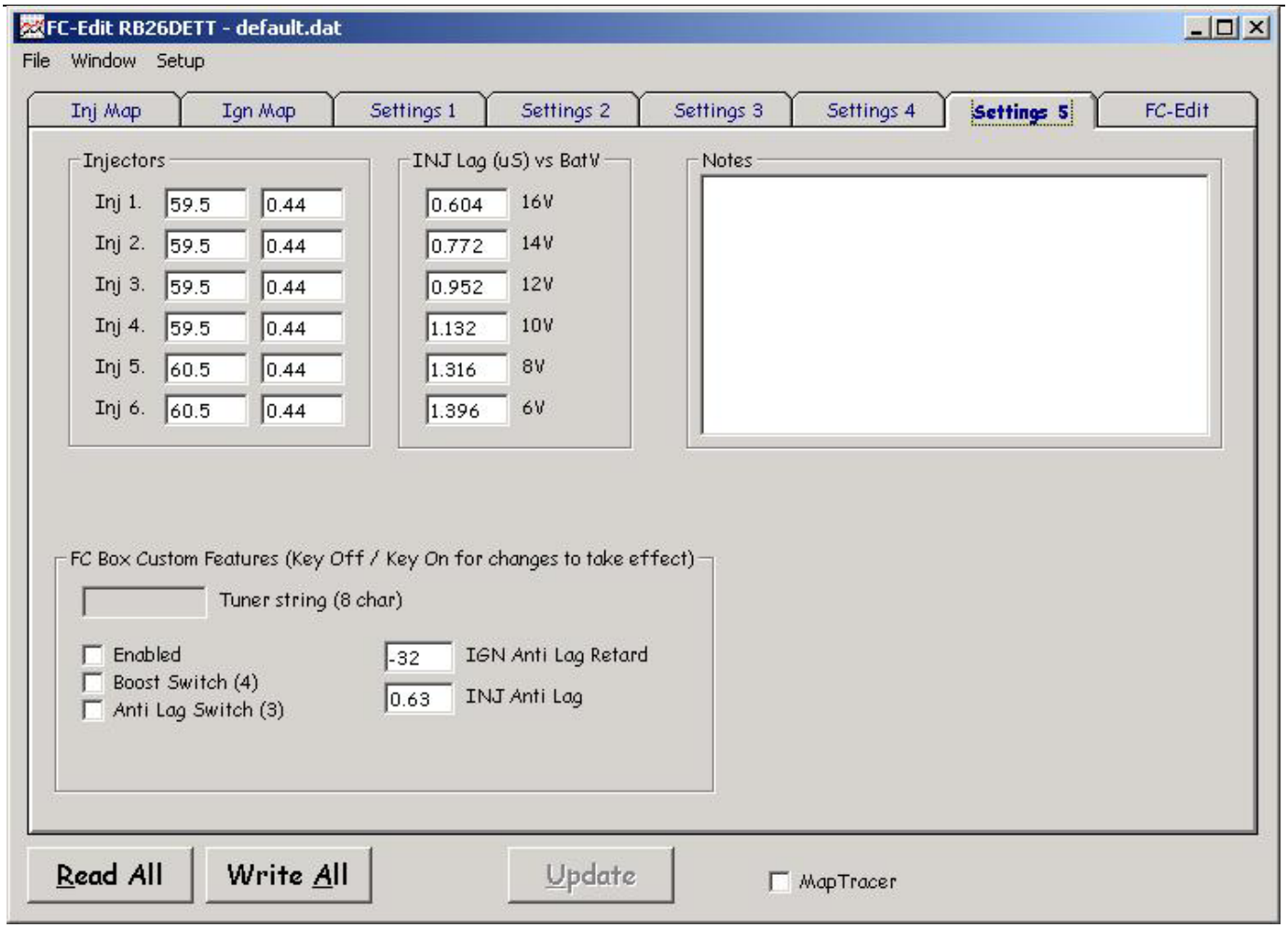
Read All | Write All | Update | MapTracer

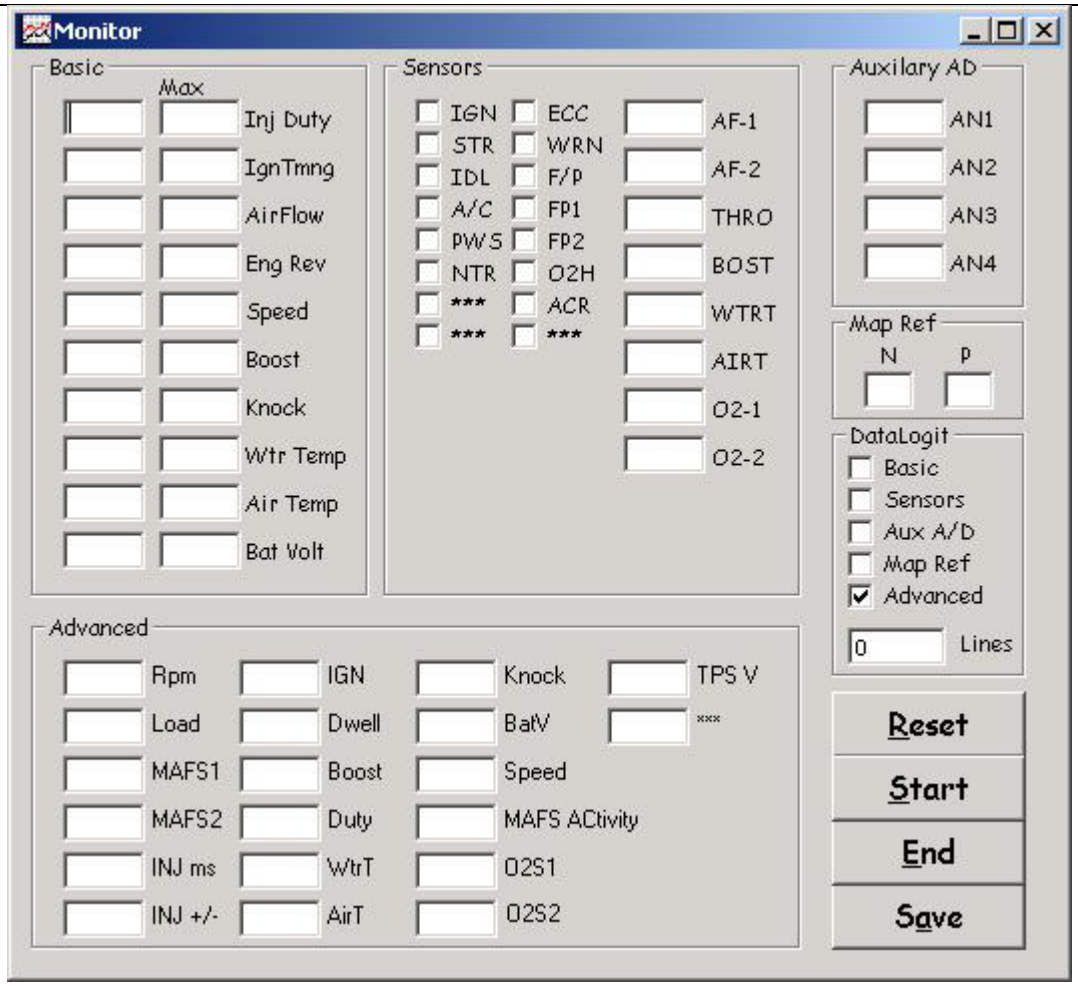

FC-Edit RB26DETT - default.dat
File
Window
Setup
Inj Map
Ign Map
Settings 1
Settings 2
Settings 3
Settings 4
Settings 5
FC-Edit
Boost Control
Boost
Duty
1. 0.70 38 255
2. 1.00 50 255
3. 1.10 68 149
4. 1.30 76 200
Rev / Idle
Rev Limit 8200
F/C1 1250
F/C2 1350
Idle1 900
Idle2 950
Protect
IGN Map
INJ Map
Air Flow
Injector
Boost
Accelerate
Ign/Inj
Cranking
Wtr Temp
Rev/Idle
Version
Program String RB26DETT
Program Version 7.03B
Function Select
1.Boost cntl kit
2.Inj/AirF Warn.
3.Knock Warning
4.O2 F/B Control
5.O2 Sensor Reg.
Air-Flow Warn
1020 Thresh
30 Setting
Injector Warn
98.0 Thresh
30 Setting
Knock Warn
60 Thresh
9 Setting
O2 Feedback
1.047 Setting
Read All
Write All
Update
MapTracer

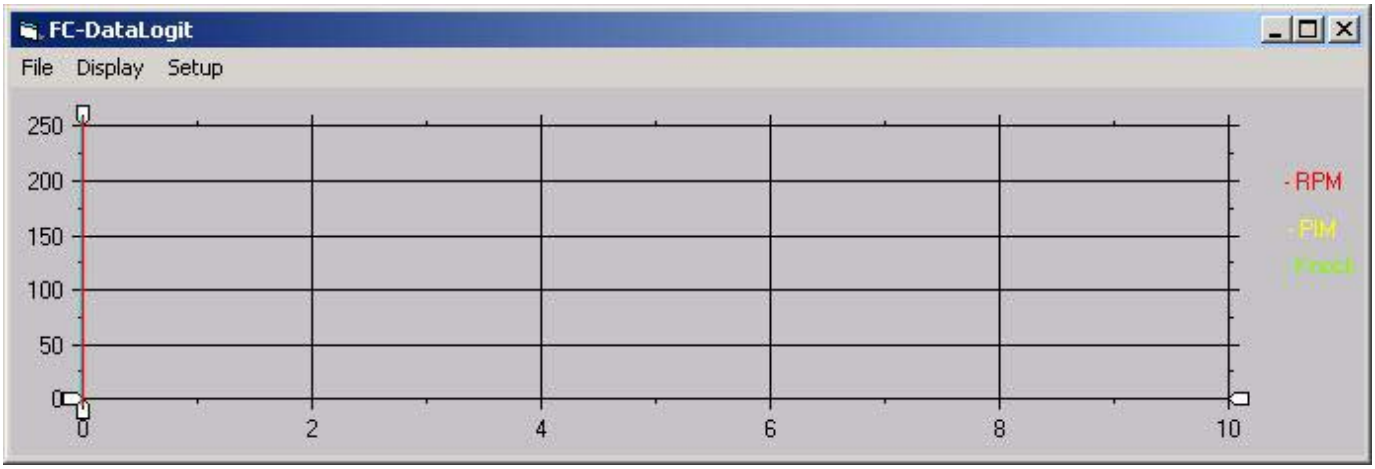

FC-Edit R26DETT - Untitled.Dat
File
Window
Setup
Inj Map
Ign Map
Settings 1
Settings 2
Settings 3
Settings 4
Settings 5
FC-Edit
Water Temp Correction
+80C 1.000 1.000
+50C 1.047 1.063
+30C 1.094 1.125
+10C 1.156 1.156
-10C 1.234 1.266
-30C 1.328 1.469
Accelerate Injector (mS)
RPM Amount Decay
5000 7.000 3.500
4000 6.000 3.000
3000 4.000 0.400
2000 3.500 0.400
1000 3.000 0.400
Cranking (mS)
+80C 7.3
+50C 9.6
+30C 14.6
+10C 32.7
-10C 54.7
-30C 77.5
Inj vs Accel TPS1
Input Setting
82 256
40 204
11 102
INJ vs Air Temp and Boost (max)
Temp Setting Boost
80 1.078 7936
70 1.047
60 1.000 760
INJ vs Water Temp and Boost (max)
Temp Setting Boost
110 1.078 7936
90 1.000 4864
Read All
Write All
Update
MapTracer

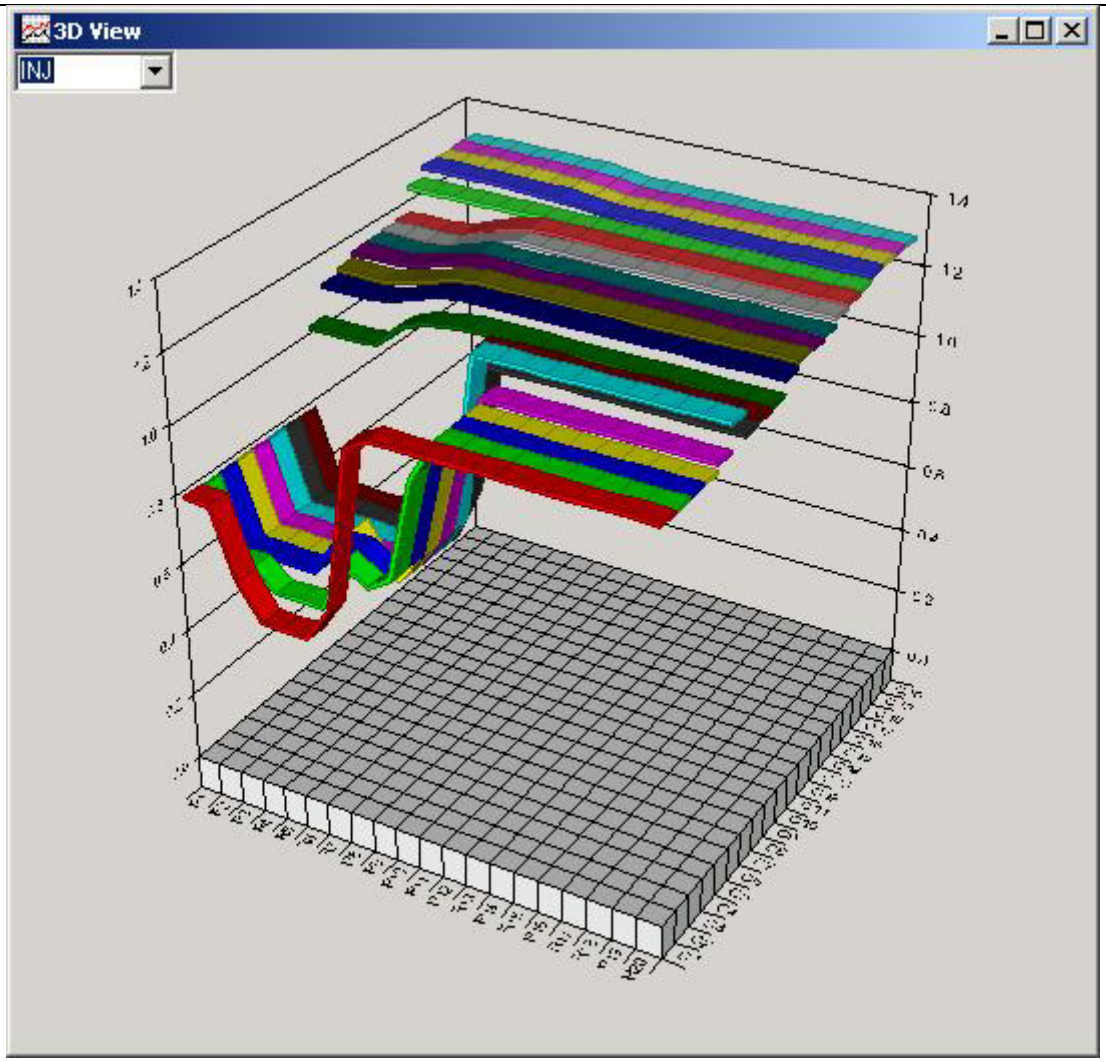

FC-Edit RB26DETT - default.dat
File
Window
Setup
Inj Map
Ign Map
Settings 1
Settings 2
Settings 3
Settings 4
Settings 5
FC-Edit
Map Reference
Air-Flow
RPM
01 0 800
02 1485 1200
03 2227 1600
04 2969 2000
05 3711 2400
06 4454 2800
07 5196 3200
08 5938 3600
09 6681 4000
10 7423 4400
11 8908 4800
12 10392 5200
13 11877 5600
14 14846 6400
15 17815 6800
16 20784 7200
17 23754 8000
18 26723 8400
19 29692 8800
20 35630 9200
Air Flow
1 1.BCNR33
2 2.BNR32
3 3.Power
4 4.80,RB25
5 5.80,VG30
0.64V 102.0
1.28V 102.0
1.92V 109.0
2.56V 107.0
3.20V 107.0
3.84V 107.0
4.48V 107.0
5.12V 107.0
Read All
Write All
Update
MapTracer

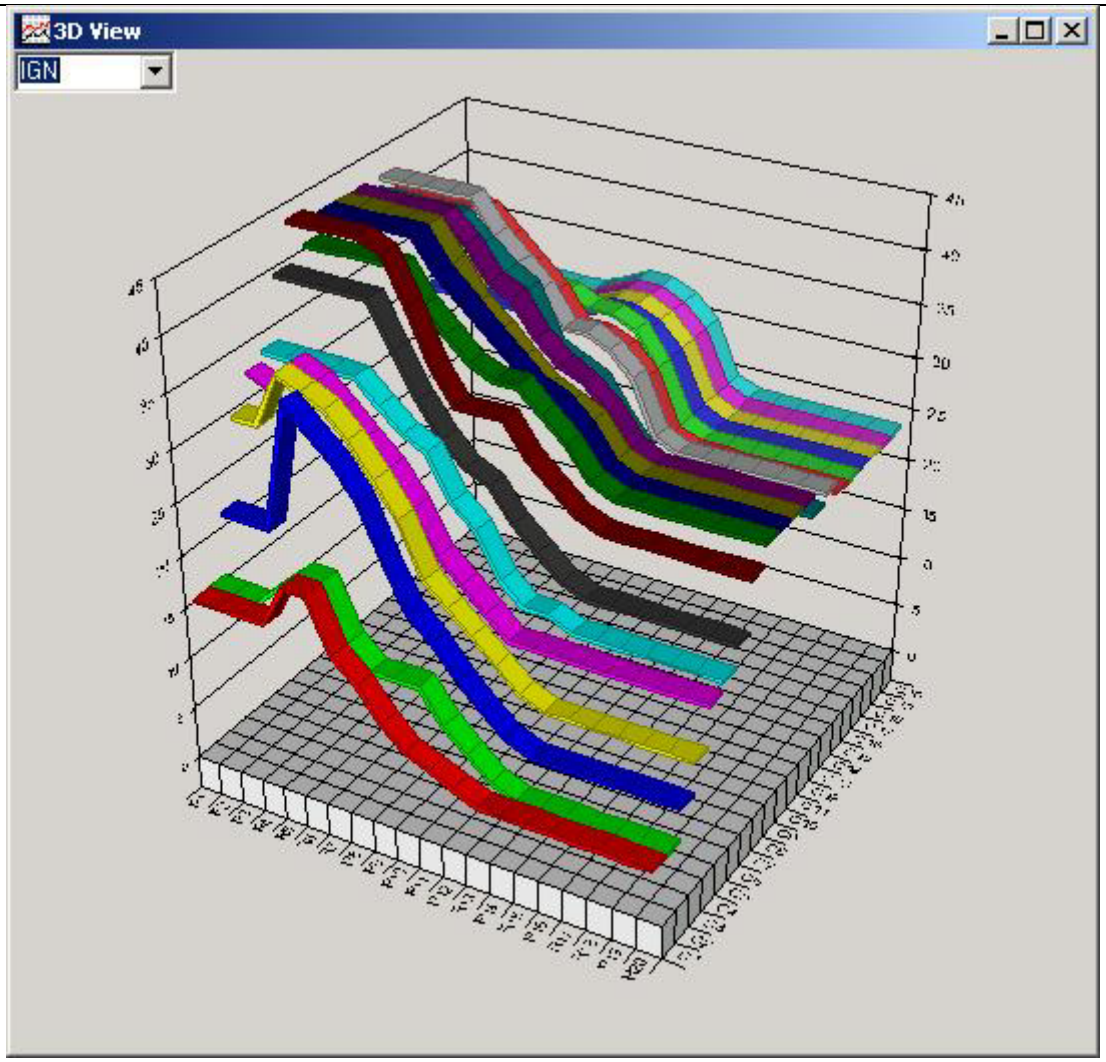

FC-Edit R26DETT - Untitled.Dat
File
Window
Setup
Inj Map
Ign Map
Settings 1
Settings 2
Settings 3
Settings 4
Settings 5
FC-Edit
IGN vs WaterT
Temp
Retard
110
4
90
0
IGN vs AirT
Temp
Retard
80
3
70
2
60
0
Boost vs IGN S.F.
Boost
S.F.
5888
1.0
3840
0.0
IGN vs BatV
0.813
16V
1.000
14V
1.250
12V
1.625
10V
1.938
9V
2.406
8V
IGN Dwell vs RPM
Adjust
RPM
130
10000
127
8000
91
4000
60
2000
32
1000
17
480
Read All
Write All
Update
MapTracer

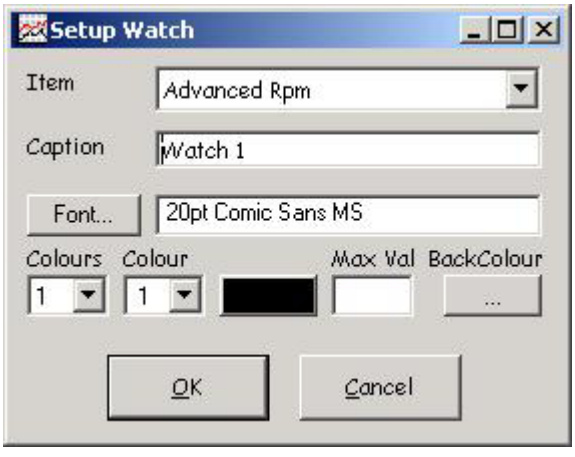

FC-Edit RB26DETT - default.dat
File
Window
Setup
Inj Map
Ign Map
Settings 1
Settings 2
Settings 3
Settings 4
Settings 5
FC-Edit
Injectors
Inj 1. 59.5 0.44
Inj 2. 59.5 0.44
Inj 3. 59.5 0.44
Inj 4. 59.5 0.44
Inj 5. 60.5 0.44
Inj 6. 60.5 0.44
INJ Lag (uS) vs BatV
0.604 16V
0.772 14V
0.952 12V
1.132 10V
1.316 8V
1.396 6V
Notes
FC Box Custom Features (Key Off / Key On for changes to take effect)
Tuner string (8 char)
Enabled
Boost Switch (4)
Anti Lag Switch (3)
-32 IGN Anti Lag Retard
0.63 INJ Anti Lag
Read All
Write All
Update
MapTracer

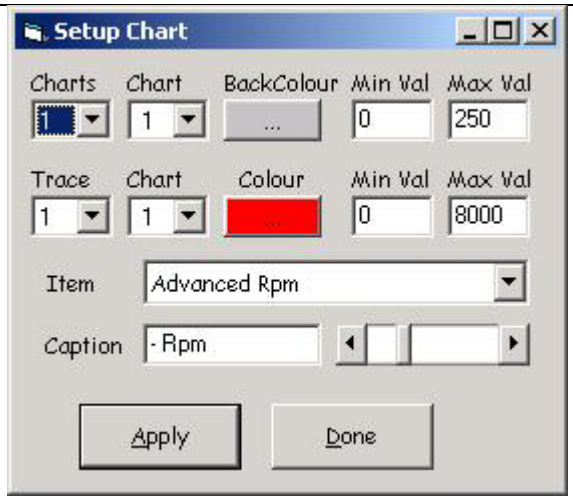

Monitor
Basic
Max
Inj Duty
IgnTmng
AirFlow
Eng Rev
Speed
Boost
Knock
Wtr Temp
Air Temp
Bat Volt
Sensors
IGN
STR
IDL
A/C
PWS
NTR
***
***
ECC
WRN
F/P
FP1
FP2
O2H
ACR
***
AF-1
AF-2
THRO
BOST
WTRT
AIRT
O2-1
O2-2
Auxilary AD
AN1
AN2
AN3
AN4
Map Ref
N
P
DataLogit
Basic
Sensors
Aux A/D
Map Ref
Advanced
0
Lines
Advanced
Rpm
Load
MAFS1
MAFS2
INJ ms
INJ +/-
IGN
Dwell
Boost
Duty
WtrT
AirT
Knock
BatV
Speed
MAFS ACtivity
O2S1
O2S2
TPS V
***
Reset
Start
End
Save

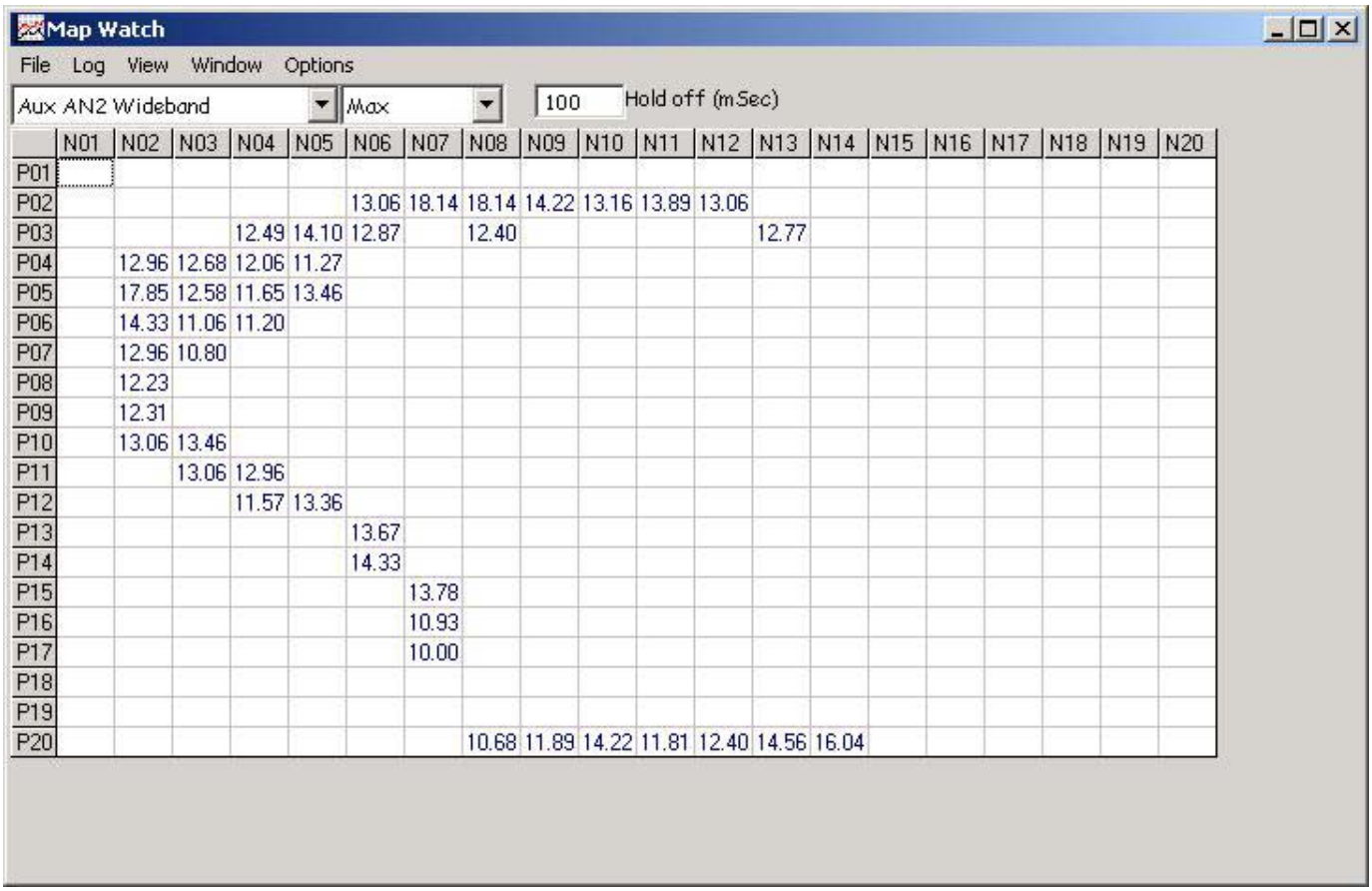

FC-DataLogit
File
Display
Setup
250
200
150
100
50
0
0
2
4
6
8
10
RPM


3D View
INJ

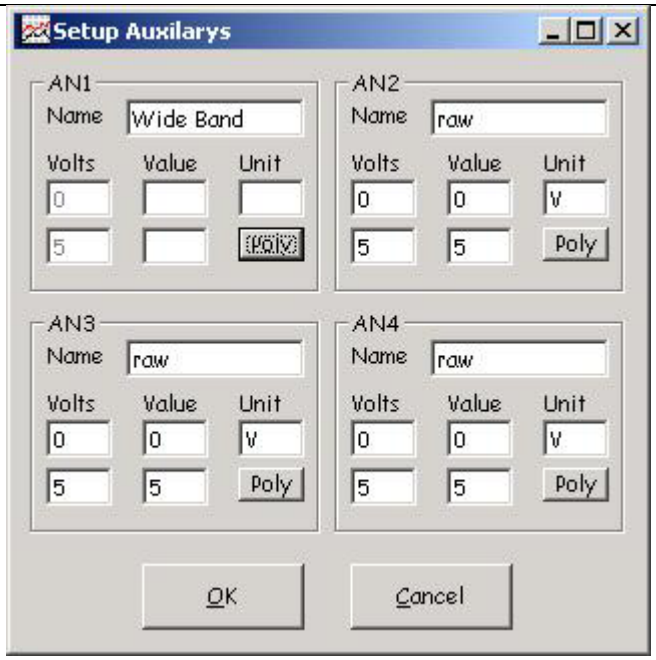

3D View
IGN

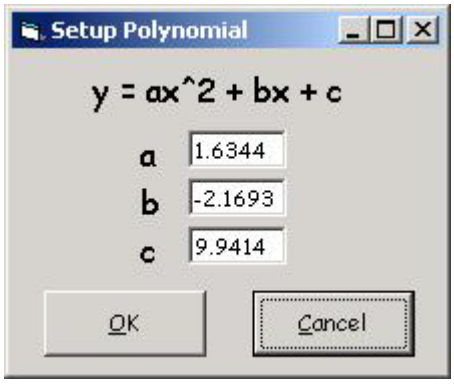

Setup Watch
Item
Advanced Rpm
Caption
Watch 1
Font...
20pt Comic Sans MS
Colours
Colour
Max Val
BackColour
1
1
...
OK
Cancel





	N01	N02	N03	N04	N05	N06	N07	N08	N09	N10	N11	N12	N13	N14	N15	N16	N17	N18	N19	N20
P01																				
P02						13.06	18.14	18.14	14.22	13.16	13.89	13.06								
P03				12.49	14.10	12.87		12.40					12.77							
P04		12.96	12.68	12.06	11.27															
P05		17.85	12.58	11.65	13.46															
P06		14.33	11.06	11.20																
P07		12.96	10.80																	
P08		12.23																		
P09		12.31																		
P10		13.06	13.46																	
P11			13.06	12.96																
P12				11.57	13.36															
P13						13.67														
P14						14.33														
P15							13.78													
P16							10.93													
P17							10.00													
P18																				
P19																				
P20								10.68	11.89	14.22	11.81	12.40	14.56	16.04						


Setup Auxilarys
AN1
Name
Wide Band
Volts
Value
Unit
0
5
Poly
AN2
Name
raw
Volts
Value
Unit
0
0
V
5
5
Poly
AN3
Name
raw
Volts
Value
Unit
0
0
V
5
5
Poly
AN4
Name
raw
Volts
Value
Unit
0
0
V
5
5
Poly
OK
Cancel


Setup Polynomial
y = ax^2 + bx + c
a
1.6344
b
-2.1693
c
9.9414
OK
Cancel