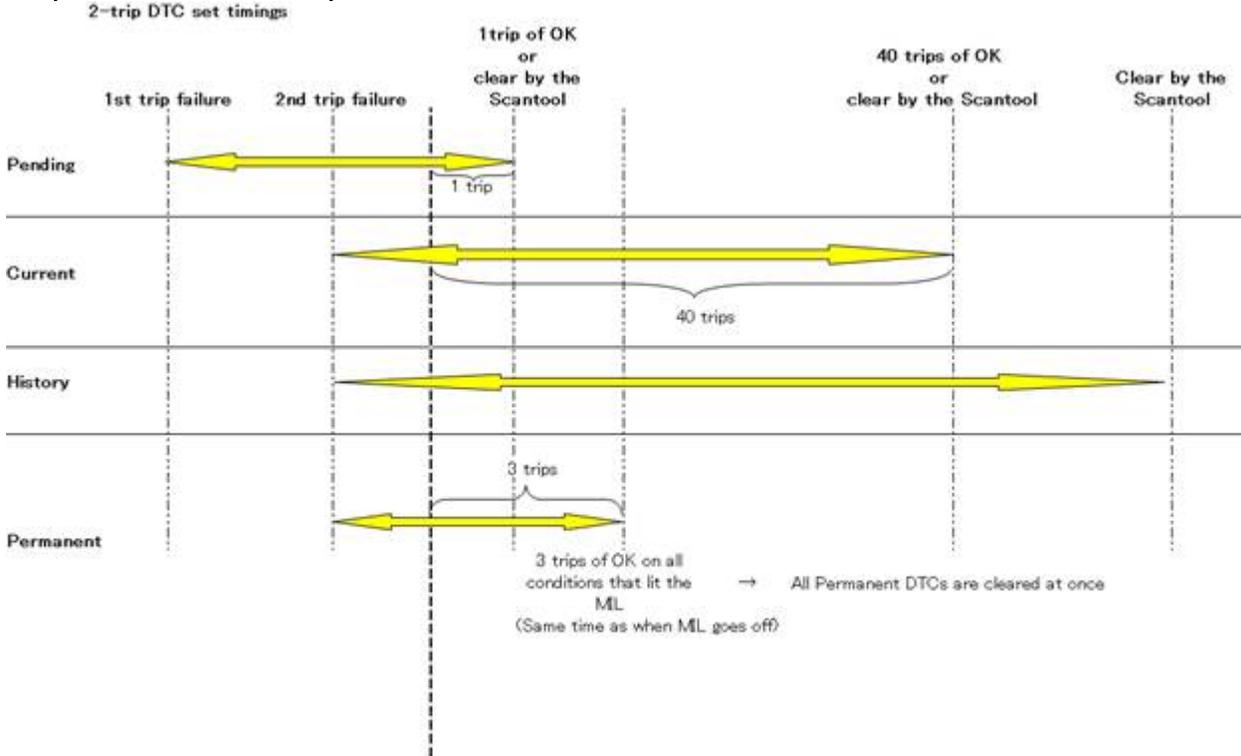


## Current DTC

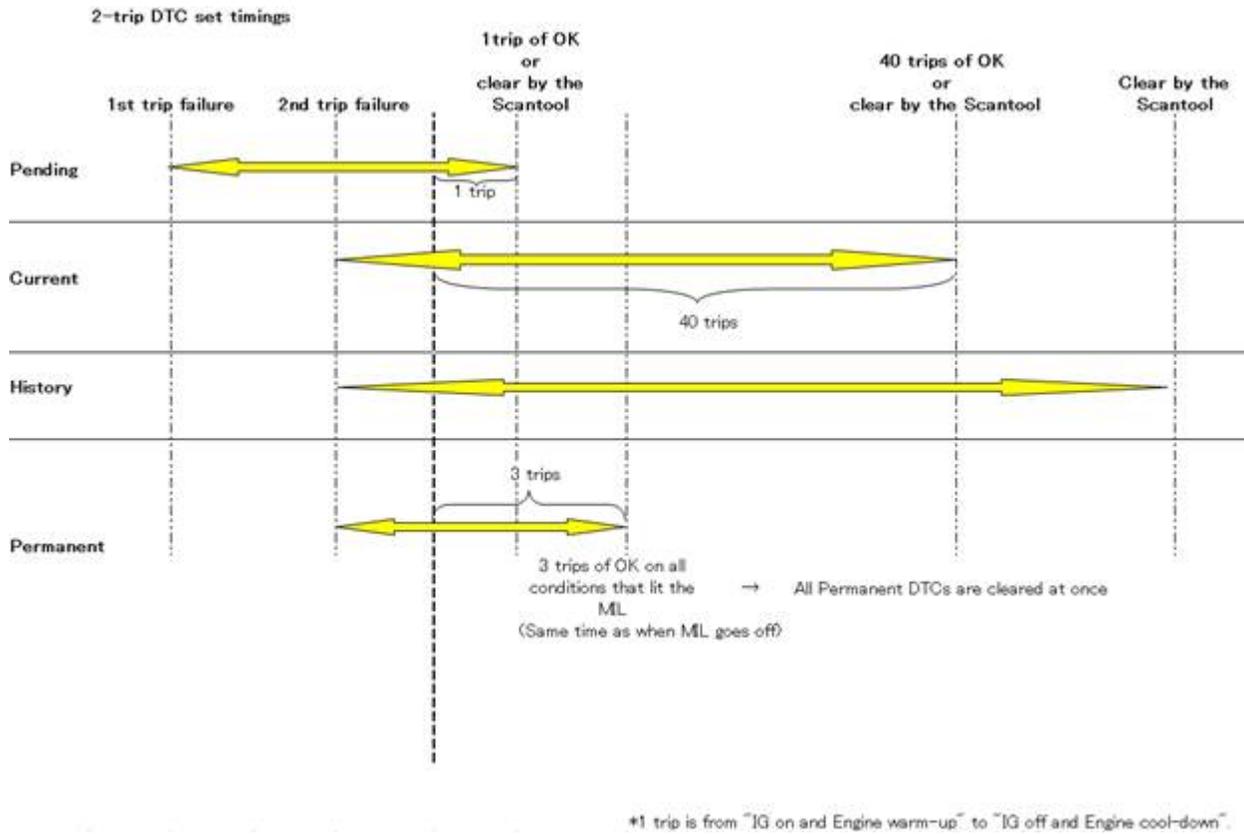
Current DTC's are trouble codes that are stored in the ECU when both continuous and non-continuous (2 trip) monitors fail. Current DTC's command the MIL On the instant they are stored in the ECU. Current DTC's can be cleared using the Clear DTC's function of the Scantool, or when the ECU monitor (2 trip monitor) has ran and completed 40 consecutive trips without a fault.



\*1 trip is from "IG on and Engine warm-up" to "IG off and Engine cool-down".

## Pending DTC

Pending DTC's are trouble codes stored in the ECU when non-continuous (2 trip) monitors fail the first trip. Pending DTC's do not command the MIL On when stored in the ECU. Pending DTC's remain stored in the ECU until the ECU monitor completes and Passes one trip. If the monitor fails the 2nd trip, the Pending DTC remains, a Current DTC is set, and the MIL is turned on. Pending DTC's can also be cleared using the Clear DTC's function of the Scantool.



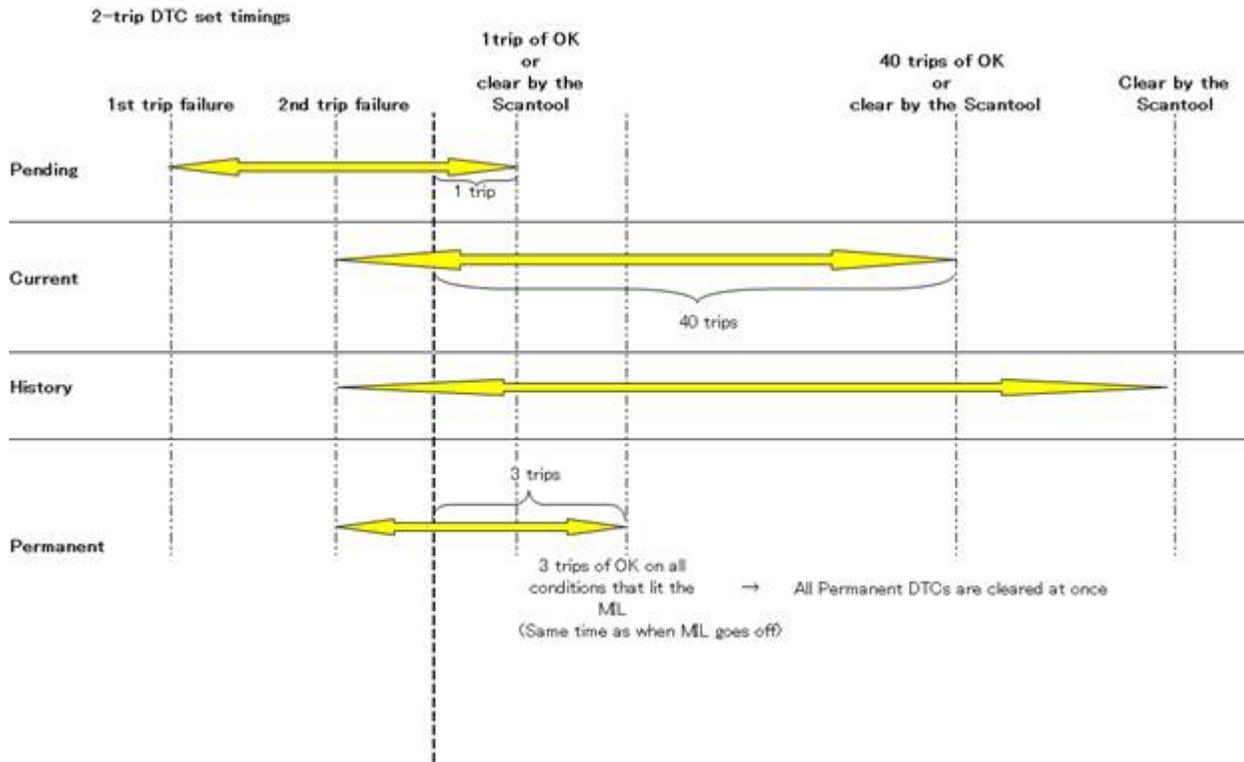
## History DTC

History DTC's are trouble codes stored in the ECU when continuous and non-continuous monitors (2nd trip) fail. History DTC's set in conjunction with Current DTC's and are not cleared by the ECU monitor. History DTC's can only be cleared using the Clear DTC function of the Scantool.



## Permanent DTC

Permanent DTC's are trouble codes that are stored in the ECU when continuous and non-continuous monitors fail. Permanent DTC's are set in conjunction with Current and History DTC's. Permanent DTC's can not be cleared using the Clear DTC's function on the Scantool. Instead, Permanent DTC's are cleared when the ECU monitor completes and passes three consecutive trips.



\*1 trip is from "IG on and Engine warm-up" to "IG off and Engine cool-down".

## Cumulative Monitor

The Cumulative Monitor lets you know if a particular readiness monitor has run and completed at least one trip since the Monitor was last reset. The Cumulative Monitor displays Test Results and Test Details for the previous Monitor trip. When Monitors are reset, Cumulative Monitor status and result fields change to *Incomplete* and *Pass*.

Cumulative Monitor information can be used during emission testing to verify that each Monitor has run, completed and passed at least one trip since the Monitor was last reset.

### Current Key Cycle:

Cumulative Status indicates Monitor has completed at least one trip since the Monitor was reset.

Test results and test details are shown for the previous trip.

Monitor	Cumulative	Result	Details
Misfire	Complete	Pass	
Fuel System	Complete	Pass	
Composition Parts	Complete	Pass	
Catalyst Efficiency	Complete	Pass	
Heated Catalyst	N/A		
Evaporative System	Complete	Fail	
Secondary Air System	N/A		
A/C System	N/A		
O2 System	Complete	Pass	
O2 Sensor Heater	Complete	Fail	
EGR	N/A		

→

Test Results (5/08/02)

Test	Result	Min	Max	Test Value	Unit
RES RATE B1S1	Pass	0.188	16.996	0.822	
RANGE B1S1	Pass	1.404	3.585	2.593	
MIN VOL B1S2	Pass	0.000	0.000	0.000	
MAX VOL B1S2	Pass	0.000	0.000	0.000	
RL FIC B1S2	Pass	0.000	0.968	0.649	
PIC TIME B1S2	Pass	0.000	4.751	1.822	
MAX OSC B1S2	Pass	0.000	0.000	0.000	
RES RATE B2S1	Pass	0.188	16.996	1.618	
RANGE B2S1	Pass	1.404	3.585	2.590	

Test Description: Response rate detection level for bank-1 sensor1

### Cumulative Monitor Reset:

When the Cumulative Monitor is reset, Monitor status and results are changed to *Incomplete* and *Pass*.

Monitor	Cumulative	Result	Details
Misfire	Incomplete	Pass	
Fuel System	Incomplete	Pass	
Composition Parts	Incomplete	Pass	
Catalyst Efficiency	Incomplete	Pass	
Heated Catalyst	N/A		
Evaporative System	Incomplete	Pass	
Secondary Air System	N/A		
A/C System	N/A		
O2 System	Incomplete	Pass	
O2 Sensor Heater	Incomplete	Pass	
EGR	N/A		

For *Current Monitor* information [click here](#).

## Current Monitor

When the key is first turned ON and the engine is OFF, Monitor Status and Monitor Results will show information from the last key cycle.

When the engine has started and is running, Monitor Status and Monitor Results will change to *Incomplete* and *Pass*. Test Results and Test Details will continue to display last trip values until the monitor runs and completes the current trip. When the Monitor completes, Monitor Status, Monitor Results, Test Results and Test Details are updated with latest trip information.

Current Monitor information can be used as an advanced diagnostic tool to confirm system/component failures, system operation and readiness monitor operation.

### IG On, Eng Off:

Monitor Status and Result fields show Monitor information from the least trip.

Monitor	Status 1	Current	Result	Details
Misfire	Ready	Complete	Pass	
Fuel System	Ready	Complete	Pass	
Composition Parts	Ready	Complete	Pass	
Catalyst Efficiency	Ready	Complete	Pass	
Heated Catalyst	Not Ready	N/A		
Evaporative System	Ready	Complete	Fail	
Secondary Air System	Not Ready	N/A		
A/C System	Not Ready	N/A		
O2 System	Ready	Complete	Pass	
O2 Sensor Heater	Ready	Complete	Fail	
EGR	Not Ready	N/A		

Test results and test details are shown for the previous trip.

Test	Result	Min	Max	Test Value	Unit
RES RATE B151	Pass	0.180	15.690	0.922	
RANGE B151	Pass	1.495	3.595	2.593	
MIN VOL B152	Pass	0.000	0.000	0.006	
MAX VOL B152	Pass	0.000	0.000	0.006	
RL FIC B152	Pass	0.000	0.995	0.045	
FIC TIME B152	Pass	0.000	4.751	1.622	
MAX OSC B152	Pass	0.000	0.000	0.006	
RES RATE B251	Pass	0.180	15.690	1.018	
RANGE B251	Pass	1.495	3.595	2.558	

Test Description: Response rate determination level for bank1 sensor1

**IG On, Eng On:**

When the engine is started Monitor Status and Result fields change to Incomplete and Pass.

Monitor	Status 1	Current	Result	Details
Misfire	Ready	Incomplete	Pass	
Fuel System	Ready	Incomplete	Pass	
Composition Parts	Ready	Incomplete	Pass	
Catalyst Efficiency	Ready	Incomplete	Pass	
Heated Catalyst	Not Ready	N/A		
Evaporative System	Ready	Incomplete	Pass	
Secondary Air System	Not Ready	N/A		
A/C System	Not Ready	N/A		
O2 System	Ready	Incomplete	Pass	
O2 Sensor Heater	Ready	Incomplete	Pass	
EGR	Not Ready	N/A		

Test results and test details are shown for the previous trip.

Test	Result	Min	Max	Test Value	Unit
RES RATE B151	Pass	0.180	15.690	0.922	
RANGE B151	Pass	1.495	3.595	2.593	
MIN VOL B152	Pass	0.000	0.000	0.006	
MAX VOL B152	Pass	0.000	0.000	0.006	
RL FIC B152	Pass	0.000	0.995	0.045	
FIC TIME B152	Pass	0.000	4.751	1.622	
MAX OSC B152	Pass	0.000	0.000	0.006	
RES RATE B251	Pass	0.180	15.690	1.018	
RANGE B251	Pass	1.495	3.595	2.558	

Test Description: Response rate determination level for bank1 sensor1

For *Cumulative Monitor* information [click here](#).

## 1:Additional key registration: normal type

To register an additional smart key, follow the below procedure.

### Step 1

Hold a registered key to the Engine/Power SW. A buzzer will sound when the vehicle recognizes the key.



### Step 2

Remove the registered key from the vehicle.



### Step 3

Place the key to be registered in the vehicle.



### Step 4

Hold the key to be registered to the Engine/Power SW.



### Step 5

Place the key to be registered on the passenger seat to complete registration.



### Step 6

Registration is complete when the registration complete screen is displayed.

The above is an explanation of the registration procedure. Please close this window, return to the Utility screen and then press "Start".

## 2:Additional key registration: LF type

To register an additional LF type smart key, follow the below procedure.

### Step 1

Hold a registered key to the Engine/Power SW, .A buzzer will sound when the vehicle recognizes the key



### Step 2

Remove the registered key from the vehicle.



### Step 3

Place the key to be registered in the vehicle.



### Step 4

Hold the key to be registered to the Engine/Power SW. A buzzer will sound when the vehicle recognizes the key.



### Step 5

**Registration is complete when the registration complete screen is displayed.**

**The above is an explanation of the registration procedure. Please close this window, return to the Utility screen and then press "Start".**

### 3:New ECU (Reset): normal type

To newly register a smart key, follow the below procedure.

**Step 1**

Hold the key to be registered to the Engine/Power SW. A buzzer will sound when the vehicle recognizes the key.



**Step 2**

Place the key to be registered on the passenger seat to complete registration.



To register an additional key, go to Step 3.  
If all the keys have been registered, go to Step 6.

**Step 3**

Remove the registered key from the vehicle.



**Step 4**

Place the key to be registered in the vehicle.



**Step 5**

Hold the key to be registered to the Engine/Power SW. A buzzer will sound when the vehicle recognizes the key.



Repeat from Step 2.

**Step 6**

Registration is complete when the registration complete screen is displayed.

The above is an explanation of the registration procedure. Please close this window, return to the Utility screen and then press "Start".

### 4:New ECU (Reset): LF type

To newly register an LF-type smart key, follow the below procedure.

**Step 1**

Hold the key to be registered to the Engine/Power SW. When the vehicle recognizes the key, a buzzer will sound and registration is complete.



To register an additional key, go to Step 2.  
If all the keys have been registered, go to Step 4.

**Step 2**

Remove the registered key from the vehicle.



**Step 3**

Place the key to be registered in the vehicle.



Go to Step 1.

**Step 4**

Registration is complete when the registration complete screen is displayed.

The above is an explanation of the registration procedure. Please close this window, return to the Utility screen and then press "Start".

## 5:Smart ECU replacement: normal type

To newly register a smart key after the Smart ECU has been replaced, follow the below procedure.

Follow the below steps to re-register keys that were registered before the Smart ECU was replaced.

- Make the Smart ECU recognize the number of registered keys with Steps 1 to 3.
- Register the registered keys to the Smart ECU with Steps 4 to 7.

For any additional New Key Registration, press "Next" at the end of this mode to start the Additional Key Registration Mode.

**Step 1**

Place the key that was registered before the Smart ECU was replaced in the vehicle.

**Step 2**

Hold the emblem side of the key that was registered before the Smart ECU was replaced to the Engine/Power SW to check the key. A buzzer will sound when the vehicle recognizes the key.



For keys that have not yet been held to the Engine/Power SW, go to Step 3.  
If all the keys have been held to the Engine/Power SW, go to Step 4.

**Step 3**

Remove the key that has been held up to the Engine/Power SW from the vehicle.



Go to Step 1.

**Step 4**

Place the key that has been held up to the Engine/Power SW on the passenger seat to complete registration.



For keys that have not yet been held to the Engine/Power SW, go to Step 5.  
If all the keys have been held to the Engine/Power SW, go to Step 8.

**Step 5**

Remove the registered key from the vehicle.

**Step 6**

Place the key that has not yet been held to the Engine/Power SW in the vehicle.

**Step 7**

Hold the emblem side of the key that has not yet been held to the Engine/Power SW to the Engine/Power SW. A buzzer will sound when the vehicle recognizes the key.



Go to Step 4.

**Step 8**

Registration is complete when the registration complete screen is displayed.

The above is an explanation of the registration procedure. Please close this window, return to the Utility screen and then press "Start".

## 6:Smart ECU replacement: LF type

To newly register an LF-type smart key after the Smart ECU has been replaced, follow the below procedure.

When ONLY Smart ECU is replaced, the following procedures are required for Key Registration.

- Make the Smart ECU recognize the number of registered keys with Steps 1 to 3.
- Register the registered keys to the Smart ECU with Steps 4 to 7.

For any additional New Key Registration, press "Next" at the end of this mode to start the Additional Key Registration Mode.

### Step 1

Place the key that was registered before the Smart ECU was replaced in the vehicle.



### Step 2

Hold the emblem side of the key that was registered before the Smart ECU was replaced to the Engine/Power SW to check the key. A buzzer will sound when the vehicle recognizes the key.



For keys that have not yet been held to the Engine/Power SW, go to Step 3.

If all the keys have been held to the Engine/Power SW, the last key to be held up will be registered. Go to Step 4.

### Step 3

Remove the key that has been held up to the Engine/Power SW from the vehicle.



Go to Step1.

### Step 4

Remove the registered key from the vehicle.



### Step 5

Place the key to be registered in the vehicle.



### Step 6

Hold the emblem side of the key to be registered to the Engine/Power SW. A buzzer will sound when the vehicle recognizes the key.



For keys that have not yet been held to the Engine/Power SW, go to Step 4.

If all the keys have been held to the Engine/Power SW, go to Step 7.

### Step 7

Registration is complete when the registration complete screen is displayed.

The above is an explanation of the registration procedure. Please close this window, return to the Utility screen and then press "Start".

## Appendix A: Menu Bar

Displays the Menu Bar in list format.

File	Open Scan Data File	
	Merge Scan Data File	
	File Compare	
	Save	
	Save As	
	Export Data	
	Print	
	Import Custom List	
	Exit Techstream	
	Recently Opened files	
Function	Connect to Vehicle	Auto Vehicle Select Manual Vehicle Select
	Connect to OBD2	
	Snapshot Configure	
	Snapshot Edit	
	Drive Recorder Configure	
	Copy VIN to Clipboard	
	Copy Data List to Clipboard	
	Send Data List to Server	
Setup	Display Properties	
	Techstream Configuration	
	VIM Select	
	Check For Updates	
	Register Techstream Software	
TIS	TIS Vehicle Main Page	
	TIS Main Page	
	TIS Vehicle Inquiry	
User	Log Out	
	Change/Create User	
	User Preferences	Vehicle Brand
		Font Size
		Unit Selection
		Language Selection
		Snapshot Type Selection
		Snapshot Duration Setting
	Graph Scale Setting	
	Hot Key Utility	
Help	Help	
	Known Bugs List	
	Techstream New Features List	
	DLC3 Cable Check	
	About Techstream	

### Menu Bar (File)

#### – Open Scan Data File

Opens saved service Event Files. Techstream has the capability to compare files, but cannot open two files at the same time. Accordingly, the Open Scan Data File function closes files after they have been verified as saved.

#### – Merge Scan Data File

Merges Event Files when a Stored Data Tab exists. Selects a service Event File, then selects the data to be merged with that file. At that time, if the service Event File displayed in the Stored Data Tab differs from the vehicle information for the selected service Event File, a Caution is displayed.

- Compare File  
Launches the Compare File function.
- Save  
Saves the opened file.
- Save As  
Saves the opened file under a separate name.
- Export Data  
Exports the selected data in CSV file format.
- Print  
Prints screen content.
- Import Custom List  
Imports a Custom List.
- Exit Techstream  
Quits the application.
- Recently Opened files  
Displays the TSE name for recently opened files. Opens the selected TSE file.

## Menu Bar (Function)

- Connect to Vehicle
  - Auto Vehicle Select  
Performs the Vehicle Connect Auto Connect function.
  - Manual Vehicle Select  
Performs the Vehicle Connect Manual Connect function.
- Connect to OBD II  
Generic OBD II performs vehicle troubleshooting (malfunction diagnosis).
- Snapshot Configure  
Performs the snapshot function. Can only be used with ECU's that can be selected in the Data List.
- Snapshot Edit  
Launches the Snapshot Edit function.
- Drive Recorder Configure  
Performs the Drive Recorder function.
- Copy VIN to clipboard  
Copies the VIN to the clipboard.
- Send Data List to Server  
Sends data list data to a URL for the server.  
Items are grayed out if either of the following conditions are satisfied.
  - :VIN couldn't be retrieved from the vehicle.
  - : The screen currently being viewed is neither the data list screen nor the Graph screen.

## Menu Bar (Setup)

- Display Properties  
Displays the design tab from properties on a Windows screen.
- Techstream Configuration  
Registers user type and information.
- VIM Select  
Performs VIM selection.
- Check For Updates  
Performs a check for application updates.
- Register Techstream Software  
Registers the software user.
- Error Report Hot Key  
Sets a hot key for recording error reports.

## Menu Bar (TIS)

- TIS Vehicle Main Page  
Opens the browser and displays the TIS Vehicle Main Page.
- TIS Main Page  
Opens the browser and displays the TIS Main Page.
- TIS Vehicle Inquiry  
Opens the browser and displays the TIS Vehicle Inquiry Page.

## Menu Bar (User)

- Log Out  
Logs out the user.

- **Change/Create User**  
Edits or adds a user.
- **User Preferences**  
Performs application settings for each user.
  - **Vehicle Brand**  
Performs Brand settings. The set brand is used on a priority basis. Select from TOYOTA, LEXUS, or SCION.
  - **Font Size**  
Performs Font settings. Select between 10pt. and 14pt. Data is displayed in the font size set here.
  - **Unit Selection**  
Performs unit settings. The selectable units are: Vehicle Speed , Temperature, Weight, Air Flow, Air Pressure, Vapor Pressure and Fuel Pressure
  - **Language Selection**  
Sets the language. Select from English, Spanish, or French.
  - **Snapshot Type Selection**  
This item configures snapshot recording type.
  - **Snapshot Duration Setting**  
This item configures snapshot recording time.
  - **Graph Scale Setting**  
This item configures line scales for all the line graphs.
  - **Hot Key Utility**  
Displays an explanation of the hot-key key assign feature. The Snapshot Record key can be optionally set.

## Menu Bar (Help)

- **Help**  
Displays Help information.
- **Known Bugs List**  
Displays bug information, etc.
- **Techstream New Features List**  
Displays the latest Techstream information.
- **DLC3 Cable Check**  
Launches the DLC3 Cable Check Utility.  
This item is available when the current screen doesn't require communication with the vehicle (available on Main Menu, Stored Data Tab, System Select, Utility Selection Menu, etc.). When not available, this item will be grayed-out.
- **About Techstream**  
Displays application version information, etc.

## Appendix B: Status Bar

The following is an explanation of items displayed on the Status Bar.

- **ECU Name**  
Displays the name of the ECU being diagnosed.
- **Screen Number**  
Displays the screen number for the current screen.
- **User Name**  
Displays the current default user name. When this button is pressed, the user change dialog box is displayed so that the user can be changed.
- **DLC Status**  
Displays the status of the vehicle connection connector.
- **Refresh Rate**  
Displays the refresh rate when data is being acquired from the vehicle.
- **VIM Information**  
Displays the Device Name selected from the menu bar [Setup] – [VIM Select] and the DLL version retrieved from the VIM.
- **Remaining Time of the Snapshot recording**  
Displays the Snapshot recording Remaining Time calculated with Duration setting in the following format.  
Time format: "hhh:mm:ss" (hhh = hour, mm = min, ss = sec)

### Note

The contents displayed in the Status Bar differ for each screen.

Shows the content pattern displayed in the Status Bar.

#### Status Bar : Type A



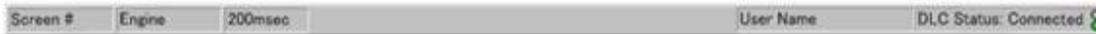
- Screen Number
- User Name
- DLC Status

#### Status Bar : Type B



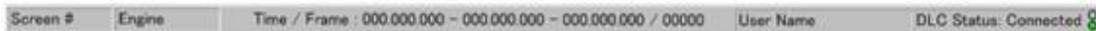
- Screen Number
- System Name
- User Name
- DLC Status

#### Status Bar : Type C



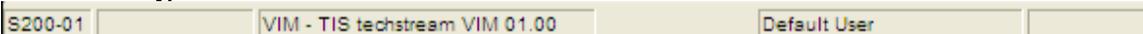
- Screen Number
- System Name
- Refresh Rate
- User Name
- DLC Status

#### Status Bar : Type D



- Screen Number
- System Name
- Replay Time
- User Name
- DLC Status

#### Status Bar : Type Main Menu



- Screen Number
- VIM Information
- User Name

#### Status Bar : Type File Compare



- Screen Number
- Playing Position / Frame Number (The original data is displayed on the left and the comparison data is displayed on the right.)
- User Name
- DLC Status

#### Status Bar: Type Snapshot (Displayed in every screen which can record the Snapshot data)

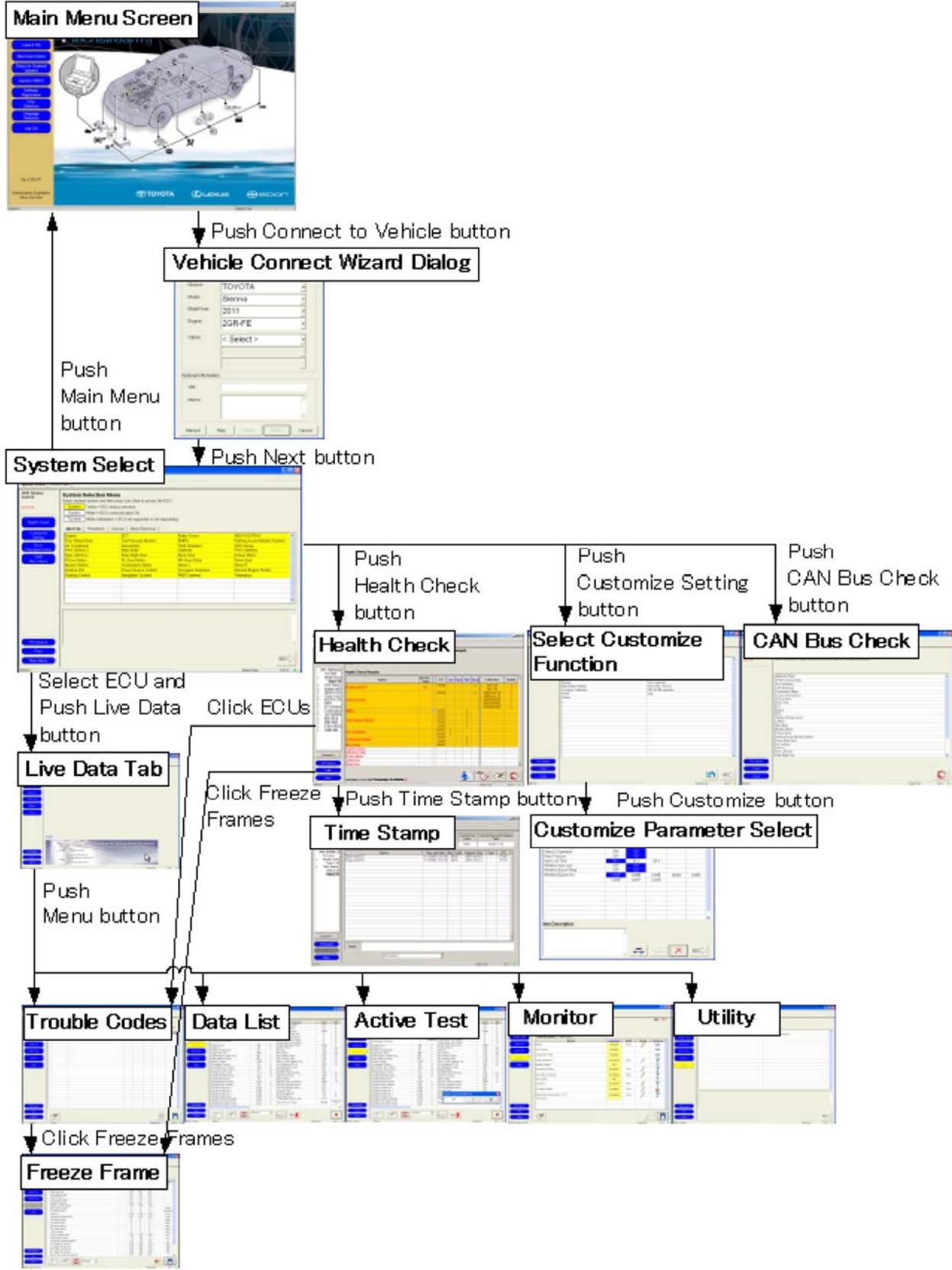


- Screen Number
- System Name
- Refresh rate
- Remaining Time of the Snapshot recording
- User Name
- DLC Status

## Appendix C: Screen Flow

Appendix C explains the procedure for using the primary functions.

1 TOYOTA Vehicle Diagnosis (Outline)



Jump to Online Help Topic  
[Main Menu Screen](#)  
[Vehicle Connect](#)

[System Select](#)

[Live Data Tab](#)

[Health Check](#)

[Time Stamp](#)

[Customize](#)

Customize Parameter Select

[CAN Bus Check](#)

[Trouble Codes](#)

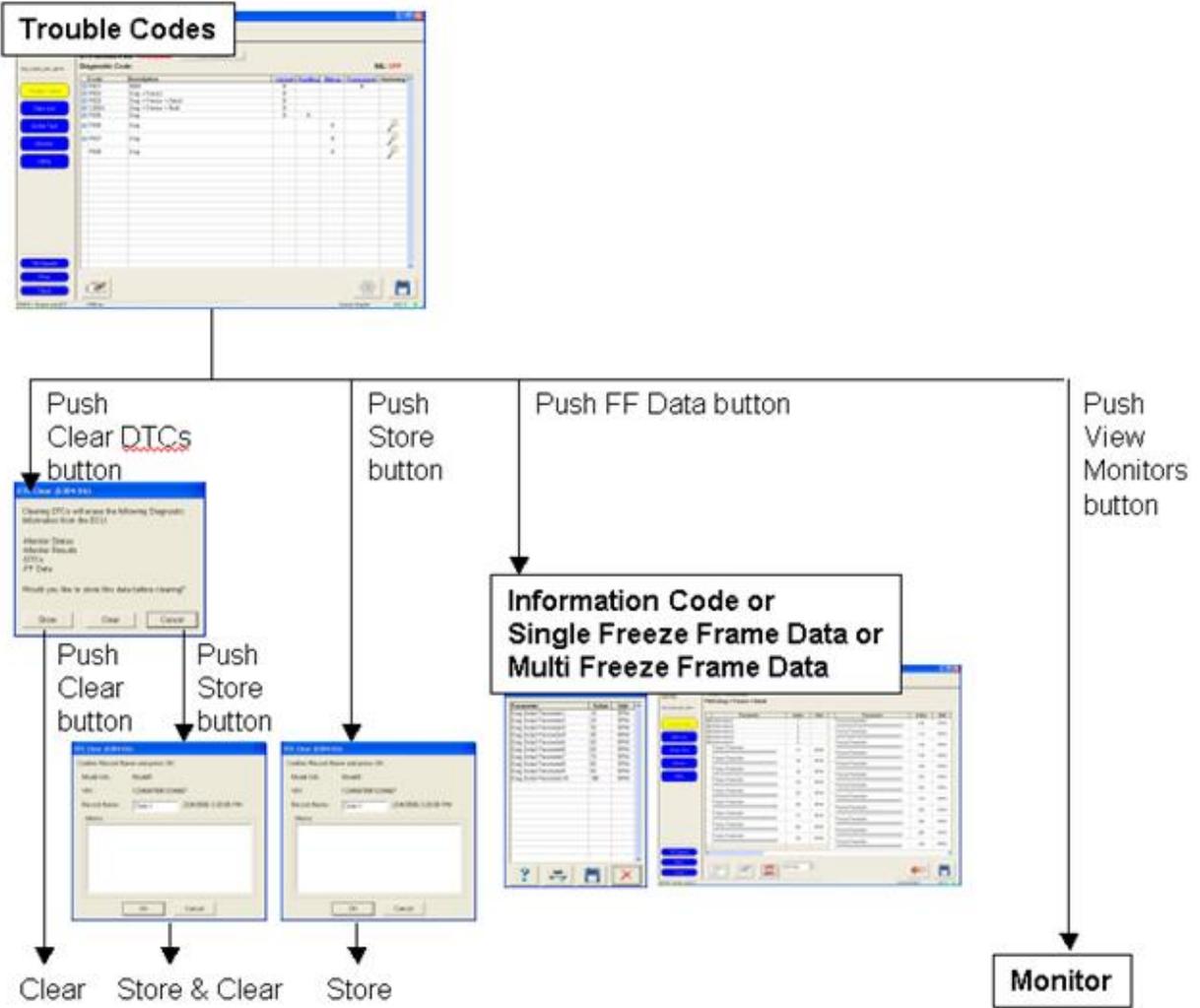
[Data List](#)

[Active Test](#)

[Monitor](#)

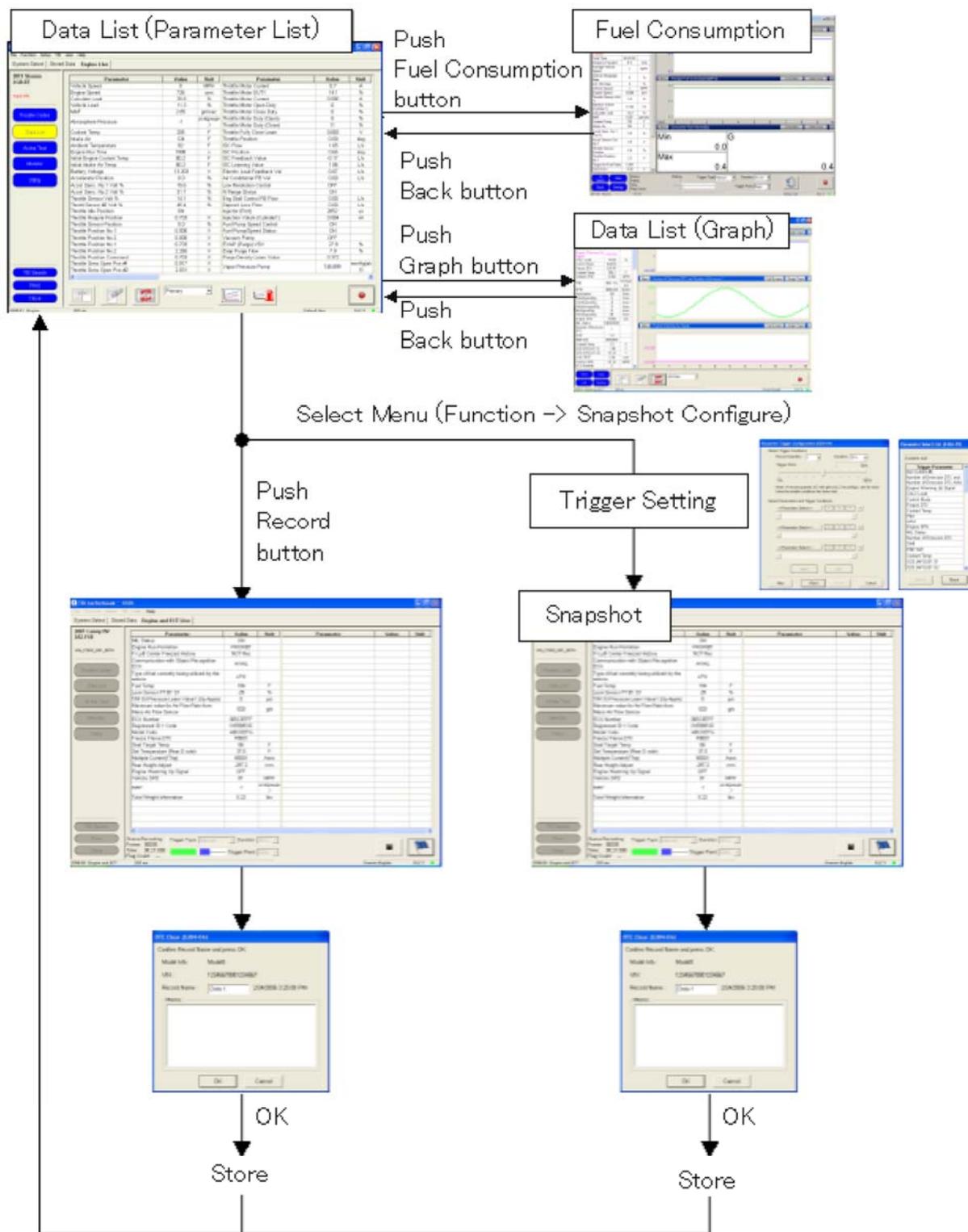
[Utility](#)

2 TOYOTA Vehicle Diagnosis (Trouble Codes)



Jump to Online Help Topic  
[Trouble Codes](#)  
[Freeze Frame Data Display](#)  
[Monitor](#)

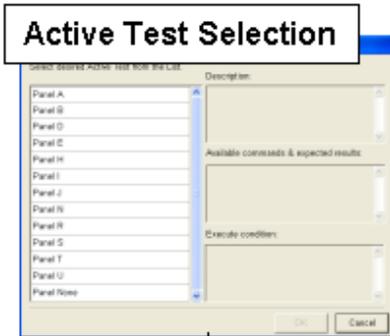
3 TOYOTA Vehicle Diagnosis (Data List)



Jump to Online Help Topic

- [Data List](#)
- [Graph Function \(data monitor\)](#)
- [Fuel Consumption](#)
- [Snapshot](#)

**4** TOYOTA Vehicle Diagnosis (Active Test)



Select Active Test Item

Push OK button



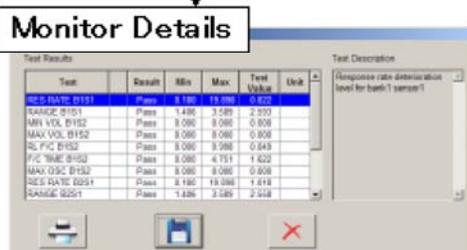
Jump to Online Help Topic

[Active Test](#)

5 TOYOTA Vehicle Diagnosis (Monitor)



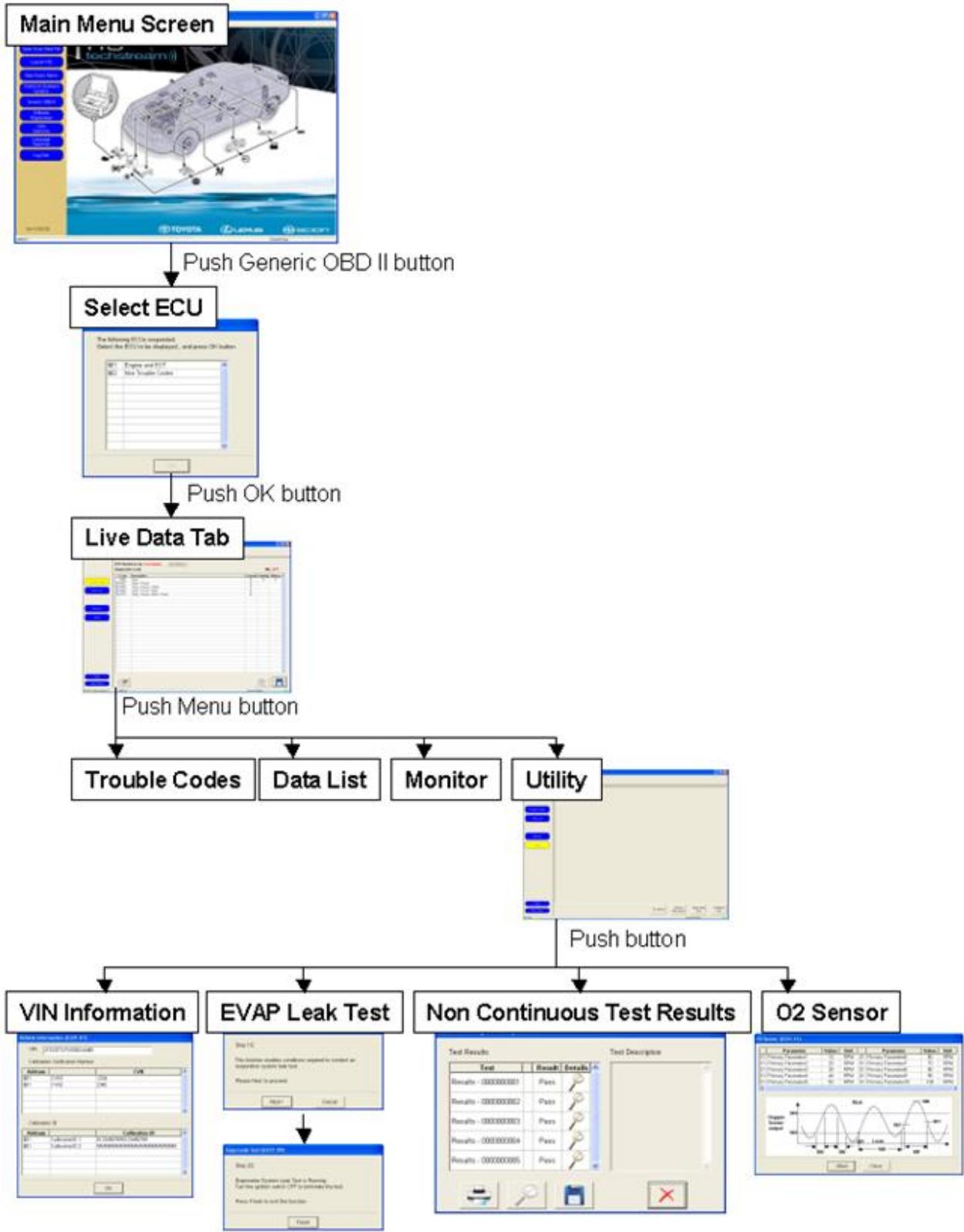
Push Monitor Details button



Jump to Online Help Topic

[Monitor](#)  
[Monitor Details](#)

6 Generic OBD II



Jump to Online Help Topic  
[Generic OBD II](#)

