



StarMOBILE™ Data Recorder Guide

**A complete reference detailing the setup
and operation of the Data Recorder on the
StarMOBILE™ system.**

StarMOBILE Data Recorder Guide

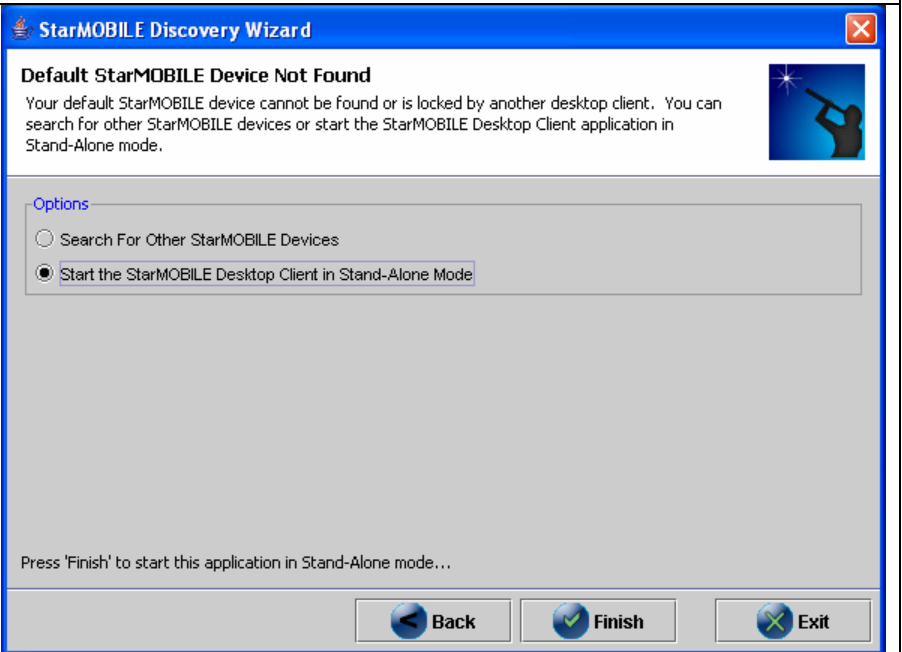
Purpose

The purpose of this document is to provide a detailed explanation of the operations of the StarMOBILE device as a data recorder. Full attention will be paid to template creation, capturing an event in a data recording, and viewing the recording. This document assumes a basic working knowledge of the StarMOBILE Desktop Client and the StarMOBILE device, and therefore treatment of topics such as launching the desktop application, selecting operating modes on the device, cable connections, or network setup are not entertained. If you need help in these areas and others, see the support documentation available at DealerCONNECT or www.dcctools.com.

Template Creation

A template may be created by using the StarMOBILE Desktop Client application in either stand-alone mode or while connected to a StarMOBILE device. The latter offers the advantage of creating a “VIN-specific” template, since if the StarMOBILE is connected to a vehicle during template creation, you have the option of displaying for selection only those elements that are available on that vehicle’s configuration. If you are interested in creating a generic template, however, creating a template in stand-alone mode (or in pass-through mode without the option to restrict the view to connected vehicle selected) will offer all possible elements for whatever year-model combination is input. This document will detail both creation processes, beginning with standalone mode.

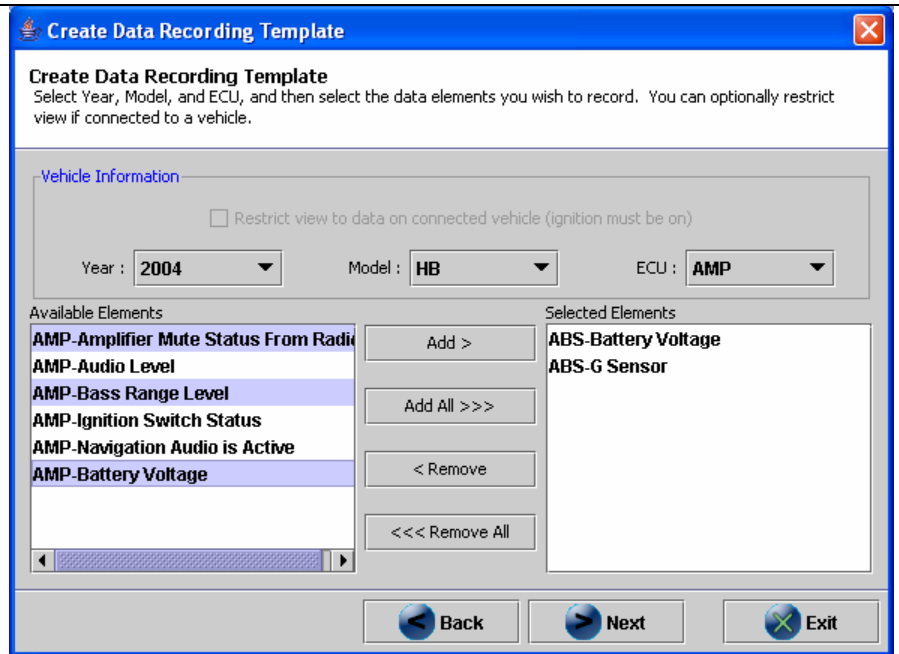
Create a Template While In Stand-Alone Mode

Step	Action
1	<p>After launching the StarMOBILE Desktop Client application, choose to start the client in Stand-Alone mode.</p> 

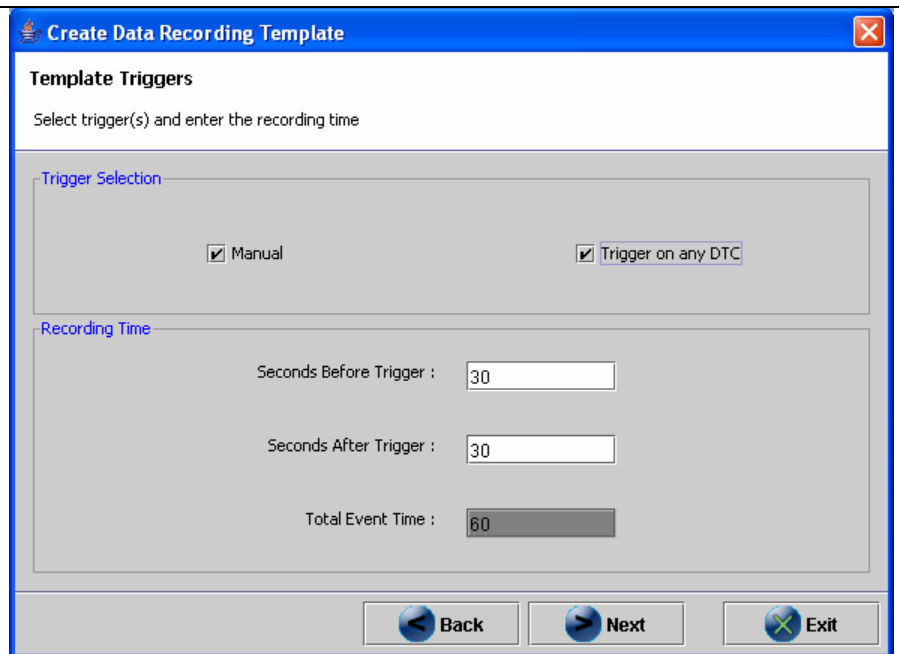
Step	Action	
2	Navigate Home > More Options > Create Recordings and select Create Template .	

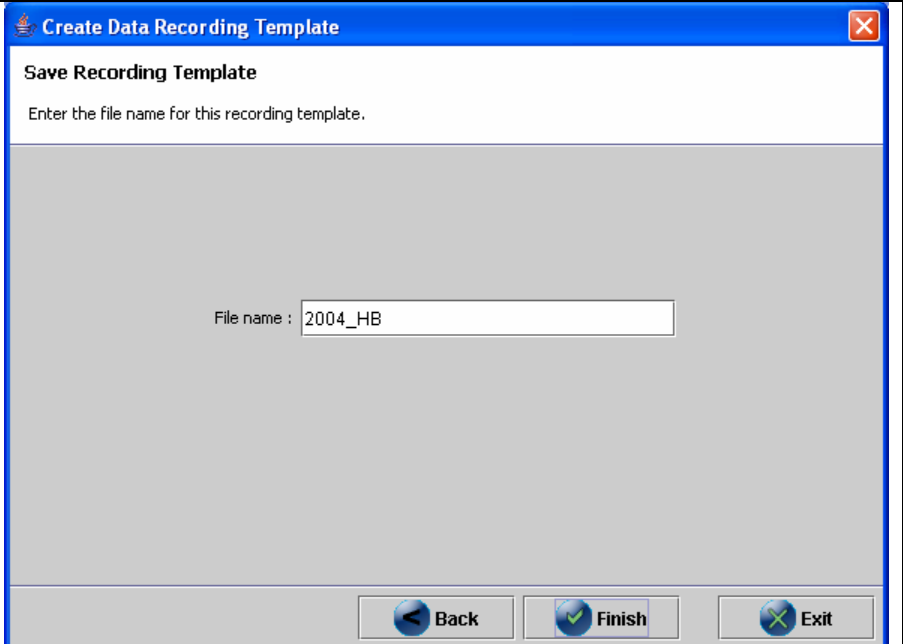
Step	Action	
3	Follow the instructions at each step of the Create Data Recording Template wizard.	

Step	Action
4	<p>Input the Year, Model, and ECU(s) configuration for which you wish to create a template. The Available Elements pane will display all the possible elements for the configuration. Click on the element(s) you wish to select and click on the Add > button to move them to the list in the Selected Elements pane. Note that you may select multiple elements by holding the Ctrl key down while clicking on non-consecutive elements or by holding the Shift key down for a range of consecutive elements. You may repeat the process for as many ECU's as you desire, though you should be aware that for performance reasons a limit exists on the number of elements that a template may contain (At the time of this writing the limit has been set at 30).</p>

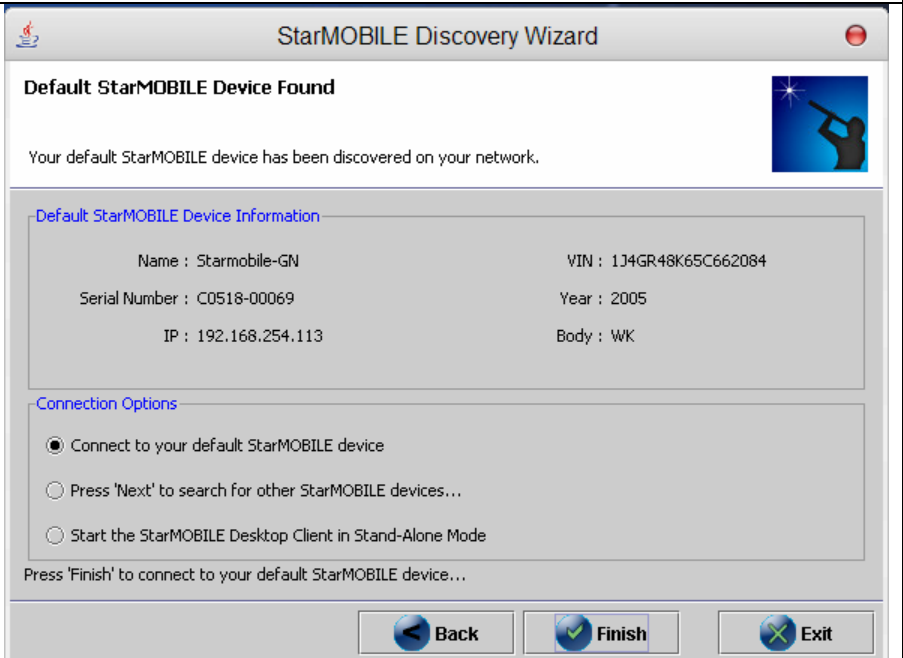


Step	Action
5	<p>Select the manner by which you wish to initiate a recording, either by a manual trigger, by the setting of a DTC, or by both. Then enter the recording time you desire by filling in the Seconds Before Trigger: and Seconds After Trigger: fields. In order to prevent memory space from filling prematurely and to reserve space on the device for multiple recordings, a limit has been set on the before and after durations (At the time of this writing 60 seconds has been allotted for each, for a total event time of two minutes).</p>



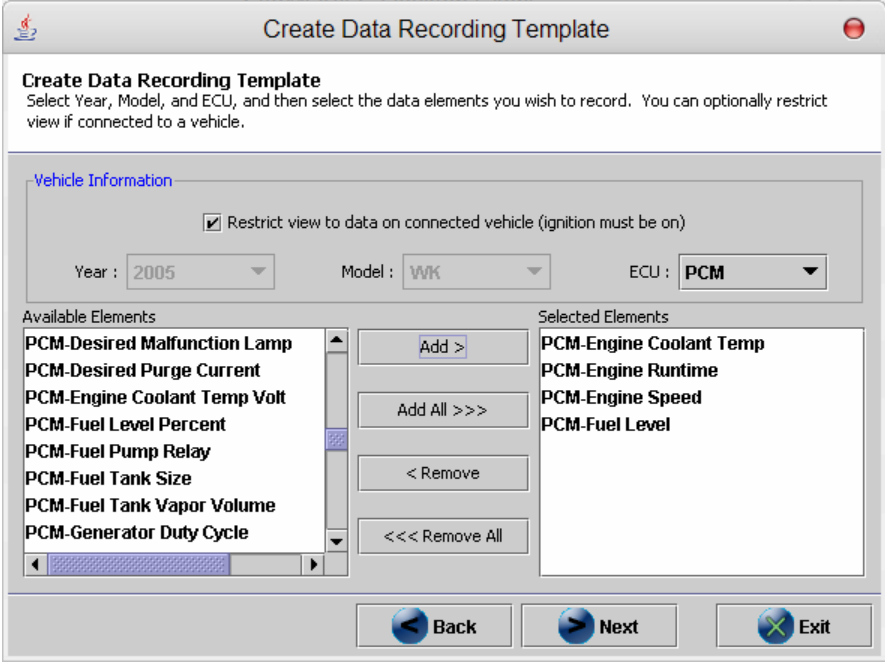
Step	Action	
6	Give the template a meaningful name that you will remember easily, and then close the wizard by clicking on Finish . Repeat steps 2 through 6 for as many templates that you wish to create.	

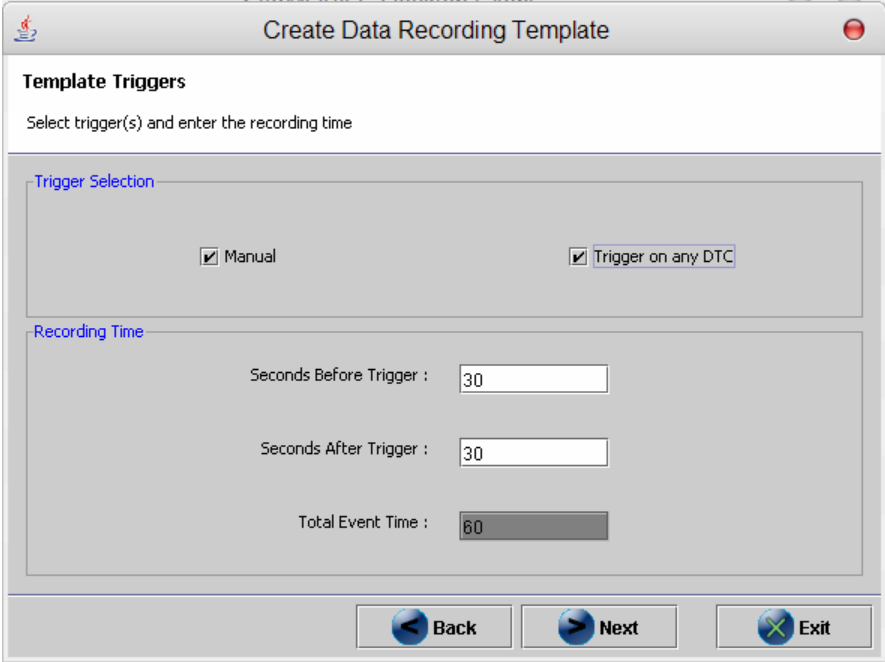
Create a Template While In Pass-Through Mode

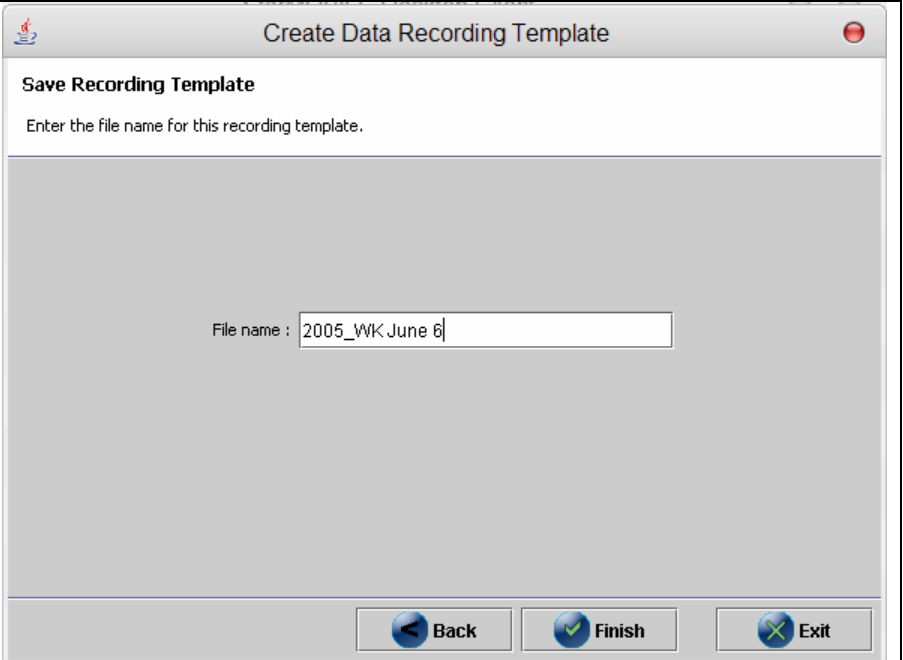
Step	Action	
1	After launching the StarMOBILE Desktop Client application, connect to the desired StarMOBILE device available on the network.	

Step	Action	
2	Navigate Home > More Options > Create Recordings and select Create Template .	

Step	Action	
3	Follow the instructions at each step of the Create Data Recording Template wizard.	

Step	Action
4	<p>If you wish, you can input the Year, Model, and ECU(s) configuration for which you wish to create a template just as you did while the StarMOBILE device was in stand-alone mode. While connected to a vehicle in pass-through mode, however, you may restrict the list of elements displayed to those specific to that vehicle by selecting that option in the checkbox.</p> 

Step	Action
5	<p>Select the manner by which you wish to initiate a recording, either by a manual trigger, by the setting of a DTC, or by both. Then enter the recording time you desire by filling in the Seconds Before Trigger: and Seconds After Trigger: fields. In order to prevent memory space from filling prematurely and to reserve space on the device for multiple recordings, a limit has been set on the before and after durations (At the time of this writing 60 seconds has been allotted for each, for a total event time of two minutes).</p> 

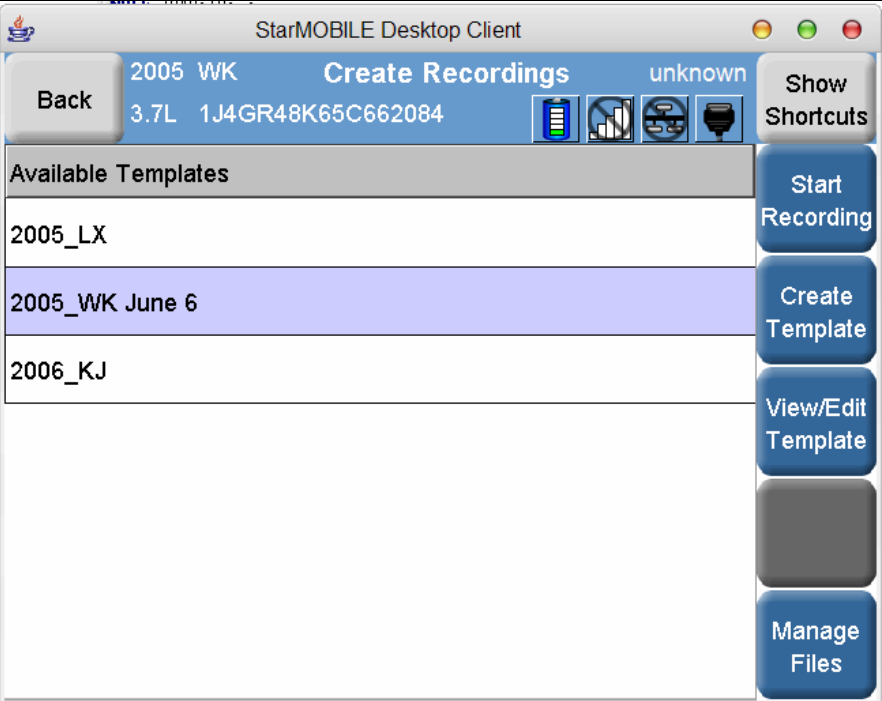
Step	Action	
6	<p>Give the template a meaningful name that you will remember easily, and then close the wizard by clicking on Finish. Repeat steps 2 through 6 for as many templates that you wish to create.</p>	

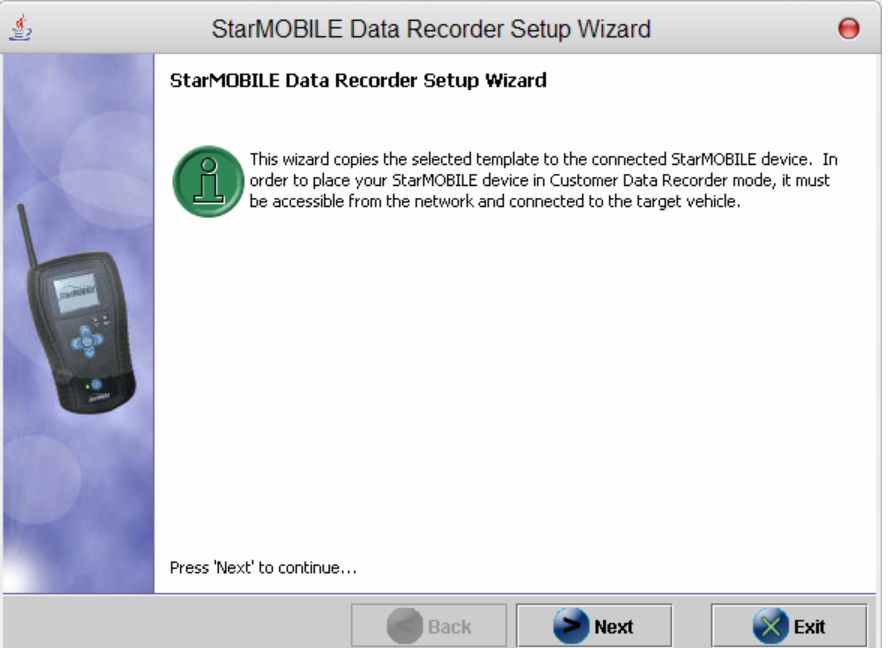
Copy Template to StarMOBILE Device

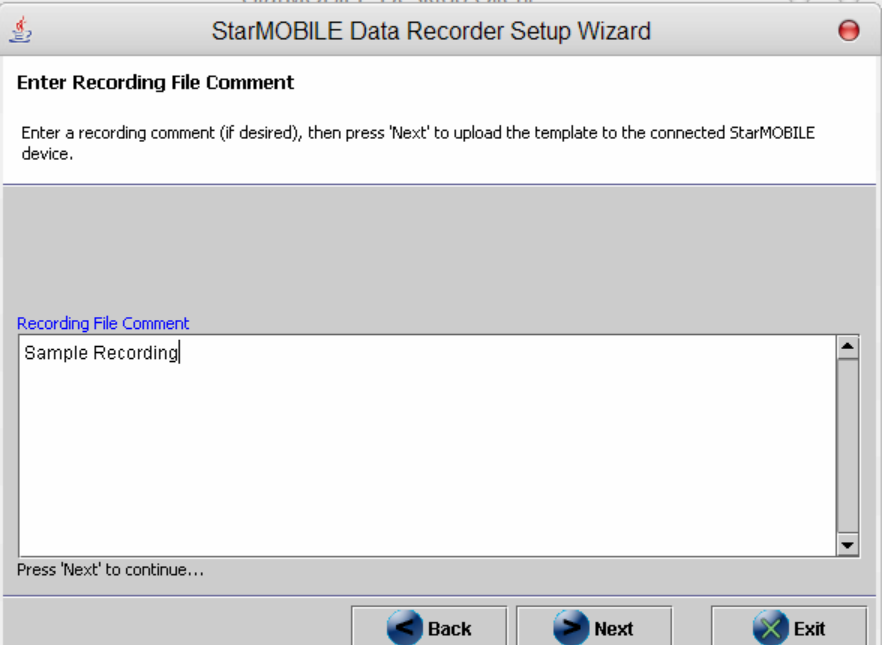
Once you have created your template you must then copy it to the StarMOBILE device in order to initiate a recording. Before copying the template, however, ensure that the following conditions are met:

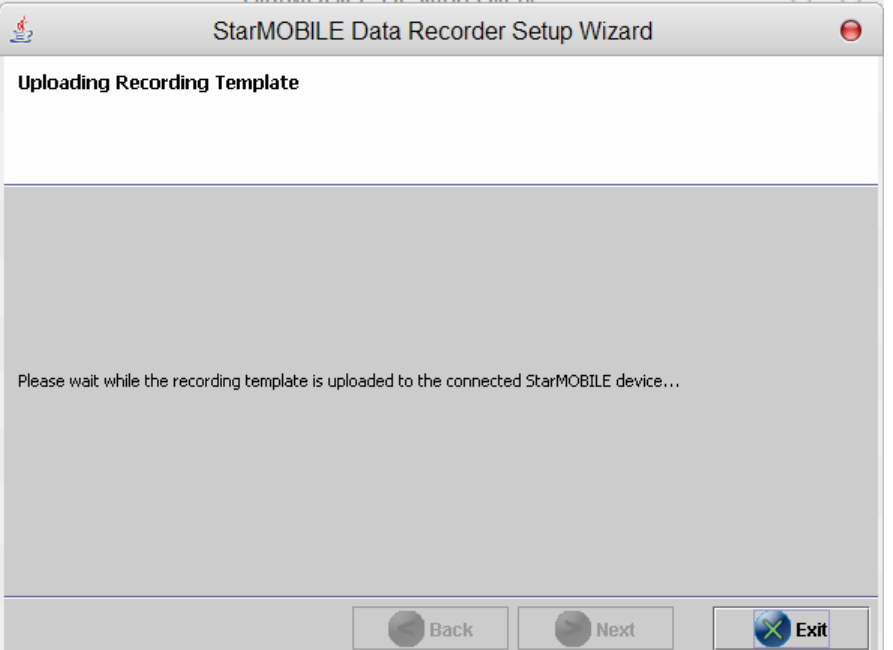
1. The StarMOBILE device is in Pass-Through mode.
2. The StarMOBILE device is connected to a vehicle.
3. The vehicle ignition is on.

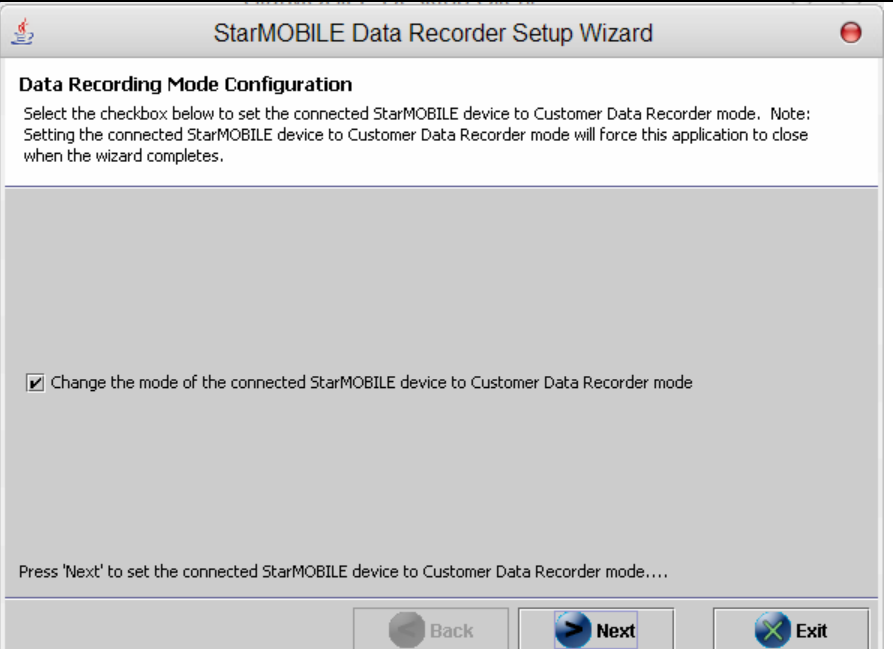
You should also be aware that only **one** template may reside on the device at any time; so copying a template will overwrite any template that presently exists on the device.

Step	Action
1	<p>From the Home screen, navigate Home > More Options > Create Recordings and select Start Recording.</p> 

Step	Action	
2	Follow the instructions at each step of the StarMOBILE Data Recorder Setup wizard.	 <p>The screenshot shows the 'StarMOBILE Data Recorder Setup Wizard' window. On the left is an image of a StarMOBILE device. The main text reads: 'This wizard copies the selected template to the connected StarMOBILE device. In order to place your StarMOBILE device in Customer Data Recorder mode, it must be accessible from the network and connected to the target vehicle.' Below the text is the instruction 'Press 'Next' to continue...'. At the bottom are 'Back', 'Next', and 'Exit' buttons.</p>

Step	Action	
3	Enter a comment describing the recording if you wish. A comment may be helpful if you want to review any notes later when you view the recording.	 <p>The screenshot shows the 'StarMOBILE Data Recorder Setup Wizard' window at the 'Enter Recording File Comment' step. The text says: 'Enter a recording comment (if desired), then press 'Next' to upload the template to the connected StarMOBILE device.' Below this is a text input field with the label 'Recording File Comment' and the text 'Sample Recording '. At the bottom is the instruction 'Press 'Next' to continue...'. At the bottom are 'Back', 'Next', and 'Exit' buttons.</p>

Step	Action	
4	Wait while the template is being copied to the StarMOBILE device.	

Step	Action	
5	It is recommended that you select the checkbox to change the mode of the StarMOBILE device from Pass-Through to Data Recorder at this point. Doing so now will save you the trouble of doing it later, as you will recall that you cannot use the StarMOBILE Desktop Client to record an event.	

Step	Action	
6	Assuming you opted to change to Data Recorder mode, pressing Finish will close the StarMOBILE Desktop Client application. At this point you are ready to initiate a recording on the device.	<p>The screenshot shows a window titled "StarMOBILE Data Recorder Setup Wizard". The main text reads: "Customer Data Recorder Mode Activated". Below this, it says: "Customer Data Recorder mode has been activated on the connected StarMOBILE device. Press the 'Finish' button and the StarMOBILE Desktop Client Application will close." At the bottom, there are three buttons: "Back", "Finish" (with a checkmark icon), and "Exit". A small text at the bottom of the window says: "Press 'Finish' to complete the wizard and close your StarMOBILE Desktop Client..."</p>

Capture an Event

Once the template is copied to the StarMOBILE device, ensure that it is in Data Recorder mode and connected. For help in device placement and trigger routing, confer the **Vehicle Installation Quick Reference Card**. Start the engine and observe the LED's on the StarMOBILE trigger: the yellow LED may blink momentarily, but will transition to a solid green LED indicating that the tool is in a state of readiness for data recording.

Press the trigger button when you want to initiate a recording. The green LED will blink every second to indicate that an event is being saved. You may begin recording again when the green LED transitions back to a solid green.

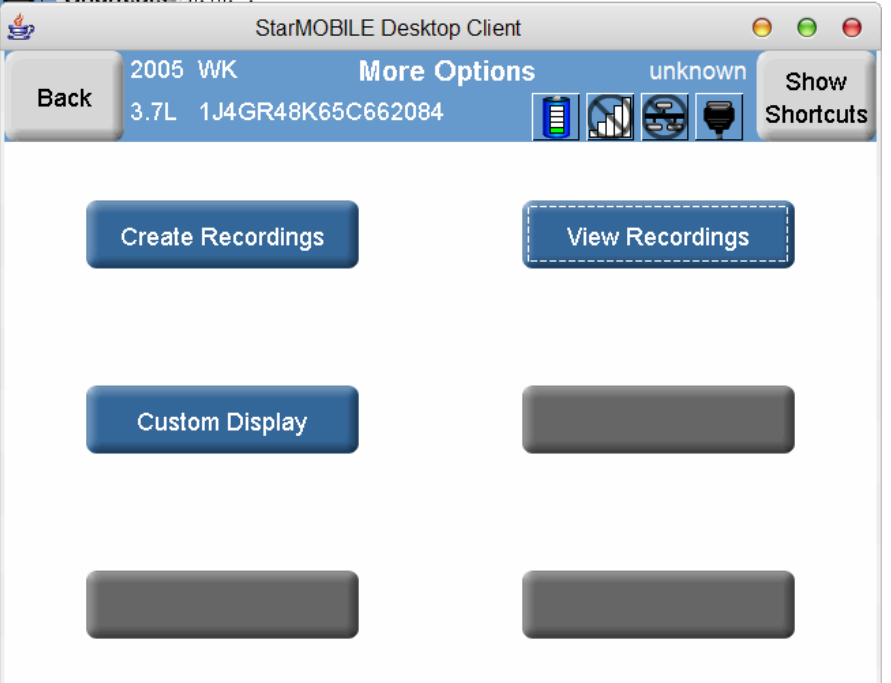


Note: You may not interrupt a recording to initiate another one. You may only begin another recording after the present one finishes and the blinking green LED transitions back to a solid green LED.

Download Recordings from StarMOBILE Device to PC

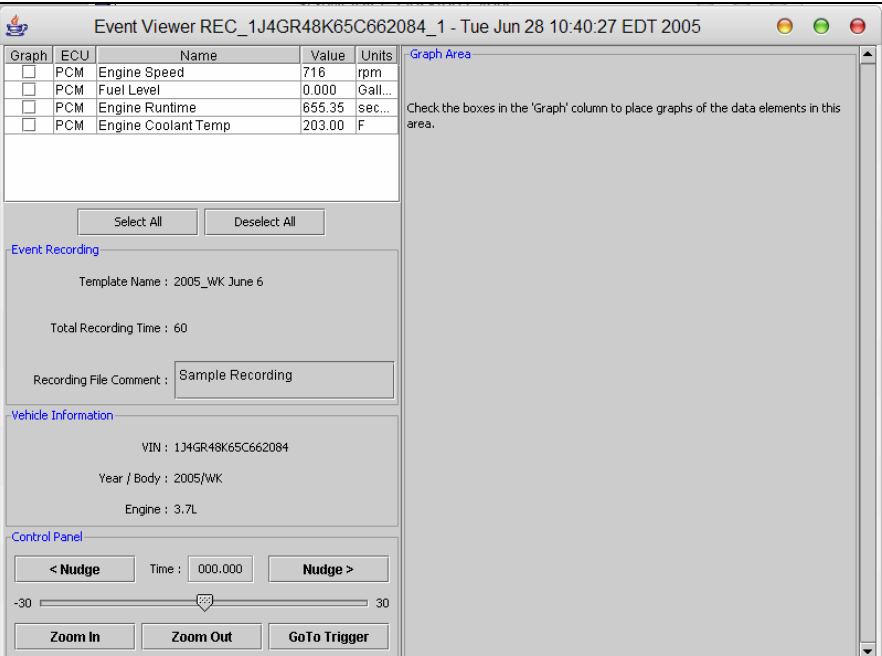
Before attempting to download recordings from your StarMOBILE device to your PC, ensure that the device is in **Pass-Through** mode.

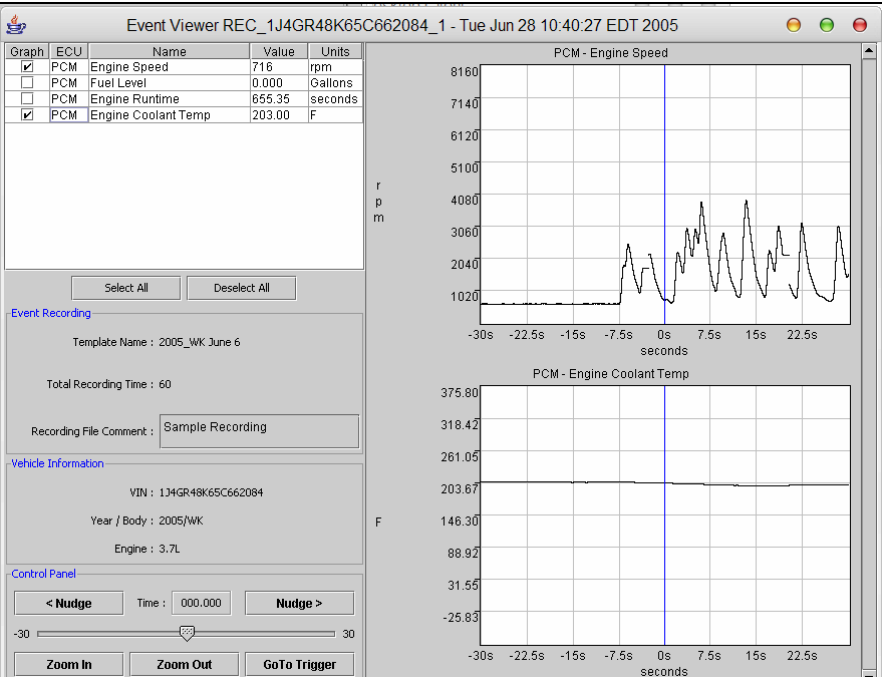
Step	Action	
1	After launching the StarMOBILE Desktop Client application, connect to the desired StarMOBILE device available on the network.	 <p>The screenshot shows the 'StarMOBILE Discovery Wizard' window. It displays 'Default StarMOBILE Device Found' and provides the following information:</p> <ul style="list-style-type: none"> Name : Starmobile-GN VIN : 1J4GR48K65C662084 Serial Number : C0518-00069 Year : 2005 IP : 192.168.254.113 Body : WK <p>Under 'Connection Options', the 'Connect to your default StarMOBILE device' option is selected. Other options include 'Press 'Next' to search for other StarMOBILE devices...' and 'Start the StarMOBILE Desktop Client in Stand-Alone Mode'. At the bottom, there are 'Back', 'Finish', and 'Exit' buttons.</p>

Step	Action	
2	Navigate Home > More Options > View Recordings . Upon selecting View Recordings all the recordings that are present on the tool will automatically begin downloading to the PC.	 <p>The screenshot shows the 'StarMOBILE Desktop Client' interface. The top bar displays '2005 WK', '3.7L 1J4GR48K65C662084', and 'More Options'. There are icons for a clipboard, a bar chart, a pie chart, and a printer. A 'Show Shortcuts' button is visible on the right. The main area contains several buttons: 'Create Recordings', 'View Recordings' (which is highlighted with a dashed border), 'Custom Display', and two other buttons that are currently disabled (greyed out).</p>

Step	Action	
3	Wait while the recording(s) download to the PC.	

Step	Action	
4	Select the recording that you wish to view and click on View Recording .	

Step	Action
5	<p>Select the desired elements that you wish to view; they will be added to the graph pane automatically.</p>  <p>The screenshot shows the 'Event Viewer' window for recording file REC_1J4GR48K65C662084_1. It features a table with columns for Graph, ECU, Name, Value, and Units. The 'Graph' column has checkboxes for PCM Engine Speed (716 rpm), PCM Fuel Level (0.000 Gallons), PCM Engine Runtime (655.35 seconds), and PCM Engine Coolant Temp (203.00 F). Below the table are 'Select All' and 'Deselect All' buttons. The 'Event Recording' section shows a template name of '2005_WK June 6' and a total recording time of 60 seconds. The 'Vehicle Information' section lists VIN: 1J4GR48K65C662084, Year/Body: 2005/WK, and Engine: 3.7L. The 'Control Panel' includes '< Nudge', 'Time: 000.000', 'Nudge >', a slider from -30 to 30, and 'Zoom In', 'Zoom Out', and 'GoTo Trigger' buttons.</p>

Step	Action
6	<p>Use the controls in the Control Panel to perform operations such as zooming in on a graph or using the slider to move the focus of the graph to a specified moment along the timeline.</p>  <p>The screenshot shows the same 'Event Viewer' window, but now with two graphs displayed in the 'Graph Area'. The top graph is 'PCM - Engine Speed' showing a fluctuating line between 1020 and 8160 rpm over a 30-second period. The bottom graph is 'PCM - Engine Coolant Temp' showing a steady line around 203 F. The 'Control Panel' and other interface elements remain the same as in the previous step.</p>

Sidebar: The Event Viewer Screen Up-Close

The screenshot shows the 'Event Viewer' window for file 'REC_1J4GR48K65C662084_1' recorded on 'Tue Jun 28 10:40:27 EDT 2005'. The interface is divided into several panes:

- Graph Pane (1):** A table listing data elements to be graphed.

Graph	ECU	Name	Value	Units
<input checked="" type="checkbox"/>	PCM	Engine Speed	716	rpm
<input type="checkbox"/>	PCM	Fuel Level	0.000	Gallons
<input type="checkbox"/>	PCM	Engine Runtime	655.35	seconds
<input checked="" type="checkbox"/>	PCM	Engine Coolant Temp	203.00	F
- Event Recording Pane (3):** Contains controls for recording, including 'Select All', 'Deselect All', 'Template Name: 2005_WK June 6', 'Total Recording Time: 60', and a 'Recording File Comment' field with 'Sample Recording'.
- Vehicle Information Pane (4):** Displays vehicle details: VIN: 1J4GR48K65C662084, Year / Body: 2005/WK, and Engine: 3.7L.
- Control Panel Pane (5):** Features navigation buttons '< Nudge', 'Time', 'Nudge >', a time slider from -30 to 30 seconds, and 'Zoom In', 'Zoom Out', and 'GoTo Trigger' buttons.

On the right side, two graphs are displayed:

- PCM - Engine Speed (2):** A line graph showing engine speed in rpm over time. The y-axis ranges from 1020 to 8160 rpm. The x-axis shows time from -30s to 22.5s. A vertical blue line marks the 0s point.
- PCM - Engine Coolant Temp:** A line graph showing engine coolant temperature in degrees Fahrenheit (F) over time. The y-axis ranges from -25.83 to 375.80 F. The x-axis shows time from -30s to 22.5s. A vertical blue line marks the 0s point.

1. Element Selection Pane: Select element(s) to graph by clicking on the appropriate checkboxes, or by using the **Select All** or **Deselect All** buttons.
2. Graph Pane: Displays element(s) selected to graph. A vertical scrollbar appears when more than two elements are selected.
3. Event Recording Pane: Displays information relevant to the recording itself.
4. Vehicle Information Pane: Displays information for the vehicle upon which the recording was captured.
5. Control Panel Pane: Standard controls to manipulate the graph. **< Nudge** and **Nudge >** move the cursor to the left or right along the timeline with a finer granularity than the slider; **< Nudge** and **Nudge >** are typically used in union with **Zoom In**.