Table of Contents

Chapter 5. Appendix

EDR   **GIT**

Chapter 1 **Introduction**

Read First

A Guide to EDR

Precautions for Safety

Precautions for the Environment

EDR   Read First   GIT

Introduction	Chapter: Introduction- Read First

Foreword

Dear customer, thank you for purchasing the EDR2.0 (Event Data Recorder) of G.I.T CO.,LTD (Global Information Technology Co., Ltd).

For the stable and untroublesome use of the EDR2.0 product, please read and become familiar to this user manual before your use.

The sellers and users of this manual should be aware of the fact that this device has been registered as a electromagnetically compatible equipment for business use.

Guide on the user manual's patent, trademark, copyright, publication right, and intellectual

- G.I.T Co., Ltd. has ownership of the patent, trademark, copyright, publication right, and intellectual property right of this user manual.
- Without a written consent from G.I.T Co., Ltd., this user manual, including its partial information, cannot be copied or used without notice.
- The purchase of this manual does not imply the transfer of its patent, trademark, copyright, publication right, and intellectual property right.
- "EDR2.0" is a registered trademark of G.I.T Co., Ltd.

- © Owner of publication right, G.I.T Co., Ltd. (Global Information Technology Co., Ltd)

Precautions Regarding Trademark

1. Manufacturer: G.I.T CO.,LTD
2. Country: Republic of Korea (KR)
3. GIT Building, 87 Macheon-ro, Songpa-gu, Seoul (056655)
4. Rated voltage: DC 9 – 30V === 1A

   Direct current ===

   To indicate on the rating plate the equipment is suitable for direct current only.

   This product is CE Marked according to the provision of the RED Directive.(99/5/EC)

   Here by G.I.T co., Ltd. declares that this product in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Limitation of Responsibility

- All content and images used in this user manual may be attached or deleted without prior notice for the improvement or enhancement of product functions and specifications.
- The user manual inside the EDR2.0 program is updated whenever a change in the user manual occurs, therefore we recommend you update the EDR2.0 program regularly through the Internet.
- The after-sales service for products not manufactured by G.I.T Co., Ltd., including information terminal devices (laptops) and printers, should comply with the after-sales services policies of their manufacturers.

Precautions Regarding the Environment of Use

Do not store the product in excessively high or low temperatures.

Do not expose the product to direct sunlight for too long.

Do not use the product or leave it unattended for a long period in a heated environment, such as in a parked vehicle during summer seasons.

Do not place the product near or inside insulators, heated cooking instruments, and high-pressure containers.

Do not store the product in an environment with high temperature and humidity.

Please be careful not to let the product come in contact with cables or mechanical units when the product is operating near the driving part.

Please use the product in a safe environment to prevent the product being damaged from shock and fall.

EDR   A Guide to EDR2.0   GIT

Introduction	Chapter: Introduction- A Guide to EDR2.0

Guide to the EDR2.0 (Event Data Recorder)

The product retrieves detailed data on the collision of vehicles for its identification and analysis, created to achieve the following purposes.

1. Close examination of the collision status;
2. Precise analysis of the performance of safety devices;

Components of the EDR2.0

The EDR2.0 consists of the ADL, ADL connector, and EDR2.02.0 software.

- Main body of ADL: This device connects with the vehicle's ECU (Electronic Control Unit) to communicate information.
- EDR2.0 Software: This program communicates with the vehicle's airbag ECU to read and analyze event data.
- ADL Connector: This device connects the vehicle's ECU (Electronic Control Unit) and the main body of the ADL.

EDR	Warning and Precautions for Safety	GiT

Introduction	Chapter: Introduction- Warning and Precautions for Safety

This chapter includes the warning and precautions for the safe and correct use of the product; users must read the instructions of this chapter and remember them before using the product.

⚠️ Warning

All responsibilities for damages arising from not remembering the content of this EDR2.02.0 user manual or

operation of the device that is different from the instructions of the user manual shall be borne by the user.

- You must use the authentic parts manufactured by G.I.T Co., Ltd. for cables, adapters, and other components and accessories that are connected or used with EDR2.02.0 products.
- Before operating the product, please confirm that all cables are connected properly.
- Do not remove the power cable before the power is turned off completely.
- Do not cause shock to an EDR2.0 product.
- Do not connect an EDR2.0 product to another device other than the vehicle to which the EDR2.0 can connect.
- Handle the product in an environment with temperature and humidity in which it can operate.

    (For temperature and humidity specifications, please refer to the manual's "Specifications and Functions" in Chapter 3- Basic Functions.)

- Do not use the EDR2.0 product outside of its designed purpose.
- Please be aware that proper service will not available for EDR2.0 products that have been arbitrarily disassembled, modified, or reconstructed.
- G.I.T Co., Ltd. shall not be responsible for any warranty or technical support for products that the corporation did not manufacture.
- Do not use an adapter that is not designated as the EDR2.0's AC/DC adapter if the product is being connected to one.

Precautions for Environment

Introduction	Chapter: Introduction- Precautions for the Environment

Regarding waste products that have expired, they must be discarded according to the guidelines stipulated by the provisions of the Act on Resource Circulation of Electrical and Electronic Equipment and Vehicles.

Please comply with the following content (warning) when you dispose of the product.

⚠ Warning

- When the EDR2.0 is being discarded due to expiration, it must not be discarded with general living waste.
- When the EDR2.0 is no longer used due to expiration, it must not be arbitrarily incinerated or buried.
- For inquiries of discarding the EDR2.0 product, please contact the headquarters of G.I.T Co., Ltd.
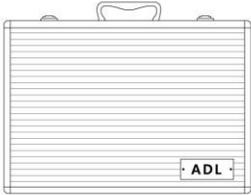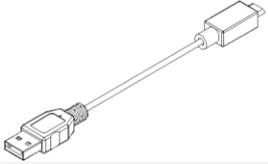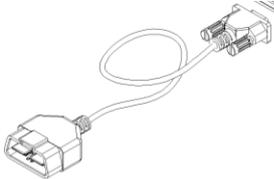
EDR   **GIT**

Chapter 2 EDR Components

Basic EDR Components

ADL Components

Basic EDR2.0 Components

EDR2.0 Components	Chapter: EDR2.0 Components – Basic Components List

Name of component	Component No.	Details	Quantity
EDR2.0 program USB	G1ZKEDB001	EDR2.0 program USB	1
Carry-on bags	G1DDDHA002	A carry bag for your EDR Product	1
ADL main body	G1ZDDMN001	The main body is connected to the vehicle and controller to perform functions such as scan-tool.	1
USB C-type cable	G1WDDCA011	A cable used for the connection between the ADL main body and the information terminal device (laptop). Cable length: 1.0m	1

OBD to D-SUB (male) cable	G1DTDCB011	A cable that is connected to the main body and the vehicle's OBD-II diagnosis contactor to be used for the HS-CAN communication with the vehicle. (Includes vehicle power supply) Adapter length: 1.5m	1
OBD to D-SUB (female) cable	G1DTDCB017	An Ethernet 100BASE-TX-applied cable that is connected to the main body and the vehicle's OBD-II diagnosis contactor to be used for the communication with the vehicle. (Includes power supply) Cable length: 1.5m	1
Diagnosis adapter [D-SUB (male) to Ethernet-T1 cable]	G1DTDCB018	An Ethernet 100BASE-T1 communication-applied cable that is used for the single ADAS_DRV2 ECU communication. (Separate power supply for adapter) Cable length: 0.4m	1
Diagnosis adapter [36 PIN -52 PIN]	G1ZDDPA025	An adapter used for the single ACU communication. Adapter length: 0.4m Adapter color: yellow	1
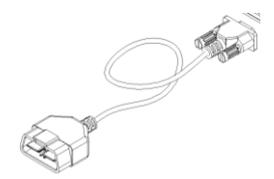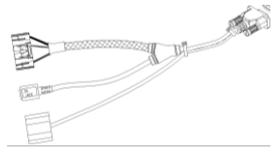
		An adapter used for the single ACU communication.	
Diagnosis adapter [36 PIN –52 PIN]	G1ZDDPA029	Adapter length: 0.4m Adapter color: yellow	1
Diagnosis adapter [36 PIN –52 PIN]	G1ZDDPA030	An adapter used for the single ACU communication. Adapter length: 0.4m Adapter color: yellow	1

● The diagnosis adapter may be added or modified depending on the type of the new vehicle and ACU specifications.

EDR   **GIT**

Chapter 4 ADL Basic Functions

ADL Specifications and Functions

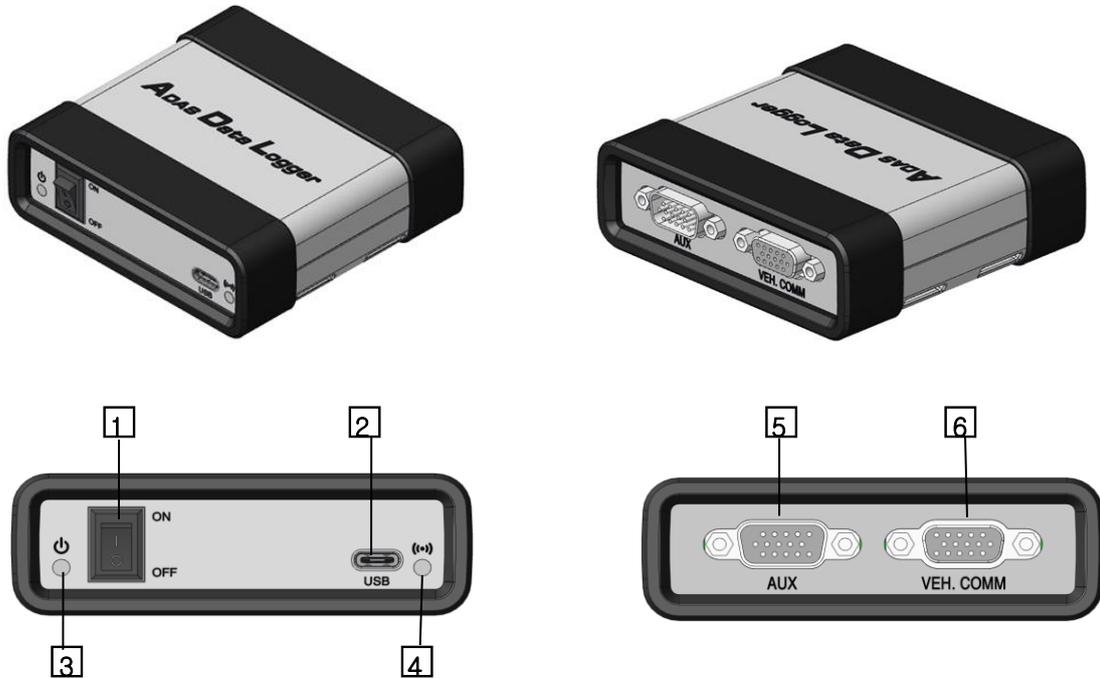ADL Power ON/OFF Controls

ADL Main Body and DLC Cable Connection

EDR ADL Specifications and Functions **GIT**

| Basic Functions | Chapter: Basic Functions- ADL Specifications and Functions |

■■ Details of the ADL Main Body

General Specifications

Category		Details
Micro-controller		ARM 32-bit Cortex™-M7 Core / 480MHz
Storage		RAM 1MByte Flash 2MByte
Operating voltage		9-30V DC
Operating environment (Temperature/Humidity)	During operation	Temperature: - 20℃ to 60℃
		Humidity: Non-condensed at 0℃ to 10℃ (32°F to 50°F) 95%RH at 10℃ to 30℃ (50°F to 86°F) 70%RH at 30℃ to 50℃ (86°F to 122°F) 40%RH at 50℃ to 70℃ (122°F to 158°F)
	During storage	Temperature: - 30℃ to 80℃
		Humidity: Non-condensed at - 20℃ to 80℃ (- 4°F to 176°F)
Cable communication		USB 2.0 Full Speed
Vehicle communication		HS CAN, CAN-FD Ethernet 100BASE-TX, Ethernet 100BASE-T1
Size		92 × 85 × 30 mm (length × width × thickness)
Material		Case (PC+ABS), Shroud (TPE)
Weight		146g

Basic Component of ADL Main Body

[Figure 1] Diagram of ADL Main Body Components

1. Main power switch
2. Main power LED (red)
3. USB connector: connected to C-type USB cable
4. Vehicle communication LED (green/red)
5. AUX D-SUB 15 PIN (male) connector: Ethernet 100BASE-TX communication and authorized power cable connection
6. VEH. COM D-SUB 15 PIN (female) connector: Ethernet 100BASE-T1 communication and authorized power cable connection

EDR	Power ON/OFF Method and Switch Control	GiT

Basic Functions	Chapter: Basic Functions– ADL Power Operation

ADL Main Body Power ON/OFF

When the power is not being supplied from the vehicle diagnosis connector, the ADL trigger product should be connected to the vehicle, and then the power switch with the ⏻ shape on the front of the ADL main body should be pressed. The product is then turned on or off.

[Figure 1] Power Switch of ADL Main Body

Status Light

An indication screen with LED is located on the front of the ADL main body to show its operation status.

[Figure 2] ADL Main Body's LED Status

Power.

The main body's power is authorized, showing an operation standby status.

- Red: power authorization and product standby status

VEH.COMM (during communication with vehicle)

It indicates that the main body is communicating with the vehicle.

- Green light blinking: Vehicle in communication with ADL main body
  (The LED is turned off when the program is shut down.)

∃DR	Connection between ADL Main Body and Main DLC Cable G1T

Basic Functions	Chapter: Basic Functions- DLC Cable Connection

Main DLC Cable Installation

First, check the location of the vehicle's diagnosis connector.

The location of the diagnosis Connector may vary depending on the vehicle. Please identify the accurate DLC location of the vehicle and the adapter to be used.

Also, please keep in mind that the ADL main body cable must be connected first during the DLC cable connection between the main body and vehicle.

Location of the DLC
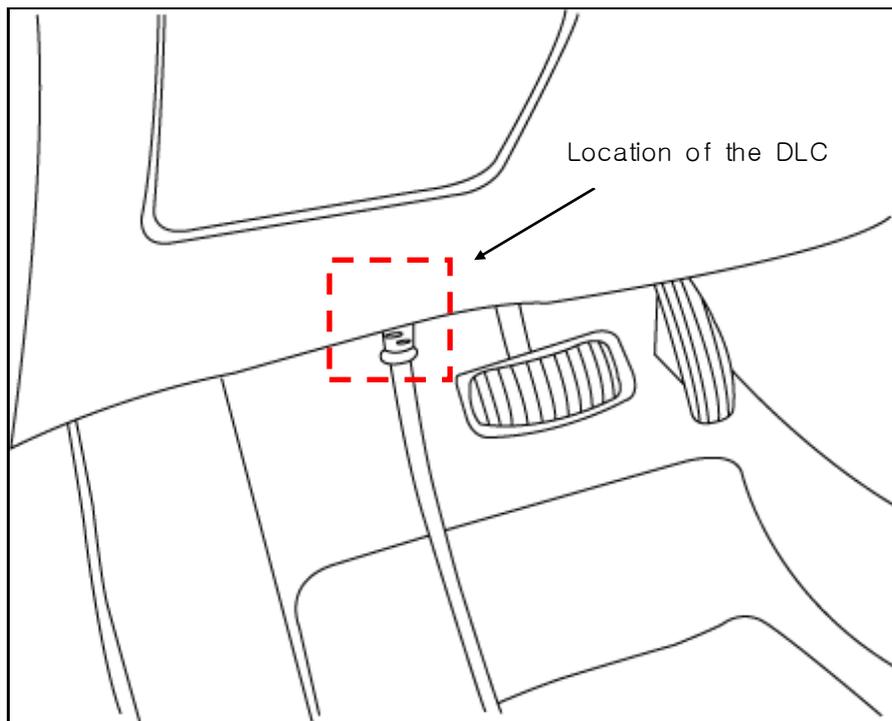
[Figure 1] Example of the Vehicle Diagnosis Connector linked to the Main Cable of DLC

⚠️ Warning

- During the disconnection of the main DLC cable, you must remove the lock clip around the connector before the disconnection Please be aware that you may damage the cable and connector if you pull the cable part or twist the cable for disconnection.
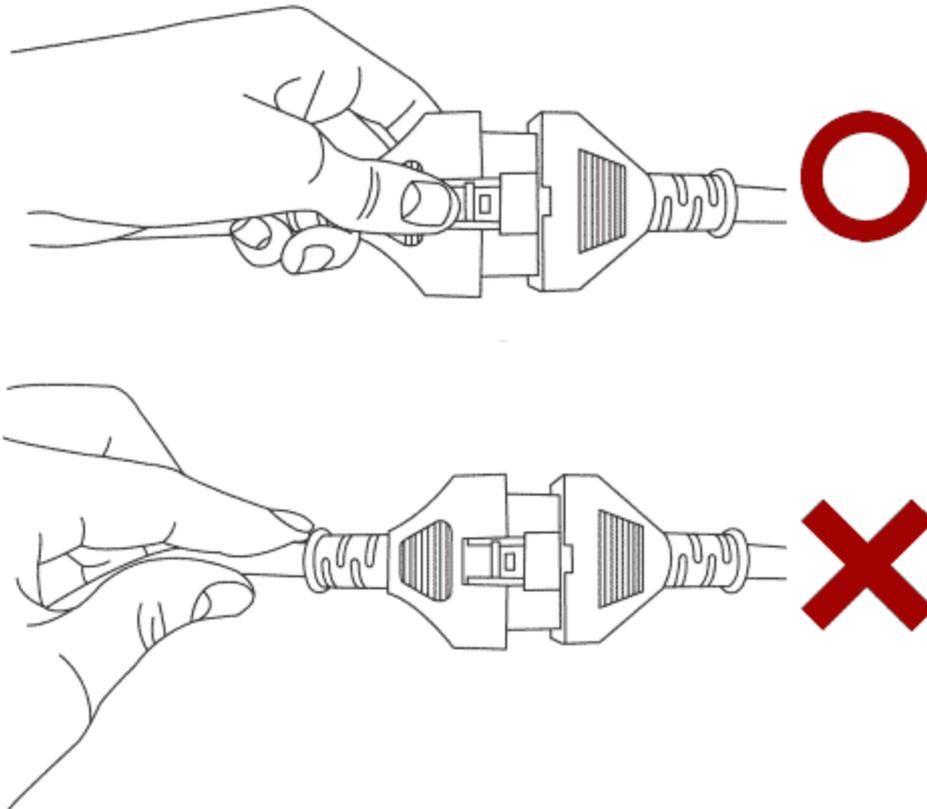
[Figure 2] Correct Main DLC Cable Disconnection Method

Connection of Main DLC Cable to ADL Main Body

To connect the ADL main body with the vehicle's diagnosis connector, you must connect the main DLC cable to the ADL main body first. As seen in [Figure 3], you can complete the connection by matching the direction of the main ADL cable to push it into the ADL main body. After the connection, re-check that the main cable and ADL main body are connected properly before actual use.
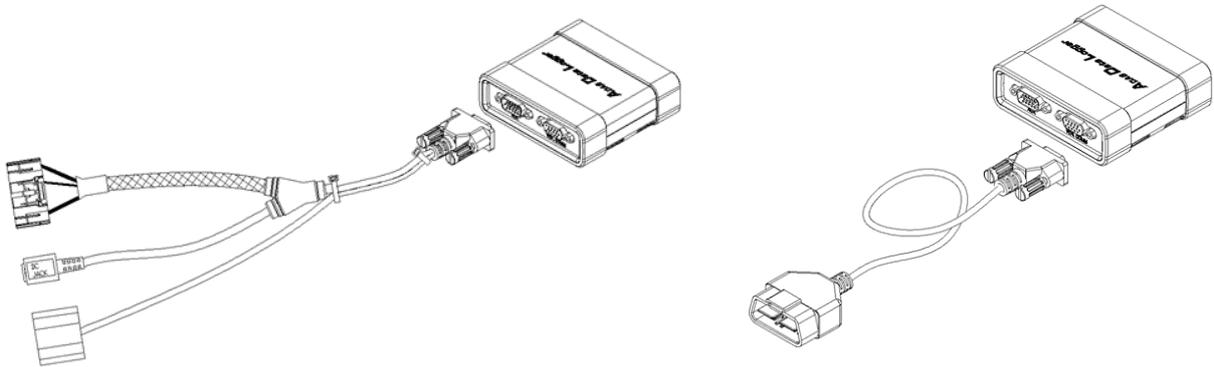
[Figure 3] Connection of Main DLC Cable to ADL Main Body

⚠ Warning

- During the connection between the ADL main body and the vehicle, the location of the vehicle's diagnosis connector must be identified correctly for proper connection as a faulty connection may cause issues in communication with the vehicle.

EDR User Manual

The mini USB C-type cable is used for the communication between the ADL main body and information terminal device (laptops).

During the connection of the ADL main body with a USB C-type cable, please check that the linkage between the ADL main body and USB C-type cable's connector is complete. Sudden disconnection during communication may cause failures.
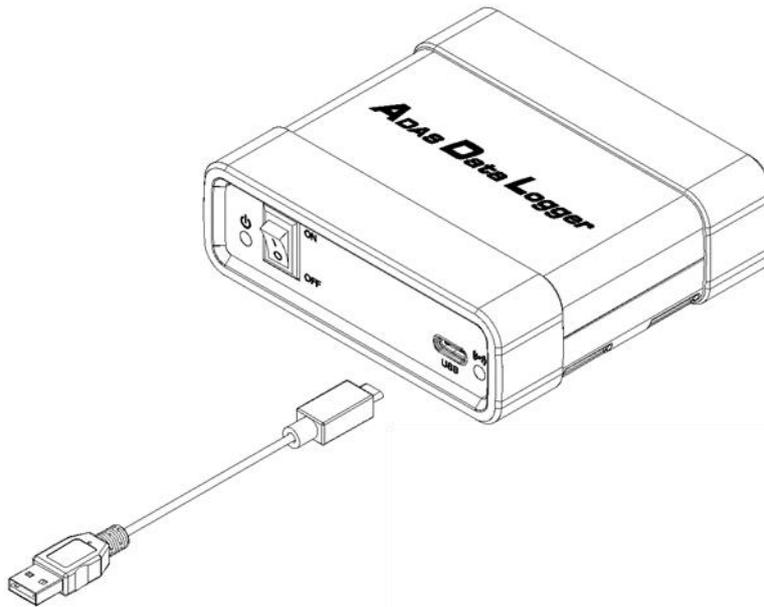
[Figure 5] Connection of USB C-type Cable to ADL Main Body

During the mini USB C-type cable connection with information terminal devices (laptops), please be careful not to disconnect the cable.

You must use the USB C-type cable provided by G.I.T Co., Ltd. for the safe use of the product.

EDR   GiT

Chapter 4 Basic EDR Operations

Starting

Main Screen Layout

Vehicle Type Selection and Search

Saving and Opening Files

Settings and Internet Update

EDR User Manual

Starting Procedure

Basic EDR2.0 Operations	Chapter: Basic EDR2.0 Operations- Starting

Starting EDR2.0

After installing the software, double-click the shortcut on the main screen two times to start the EDR2.0 as shown on [Figure 1] below.

[Figure 1] EDR2.0 Shortcut Icon on Main Screen

Clicking the icon on the main screen initiates the integrated launcher as shown in [Figure 2].
The user may choose between the [EDR2.0] and [ADL].
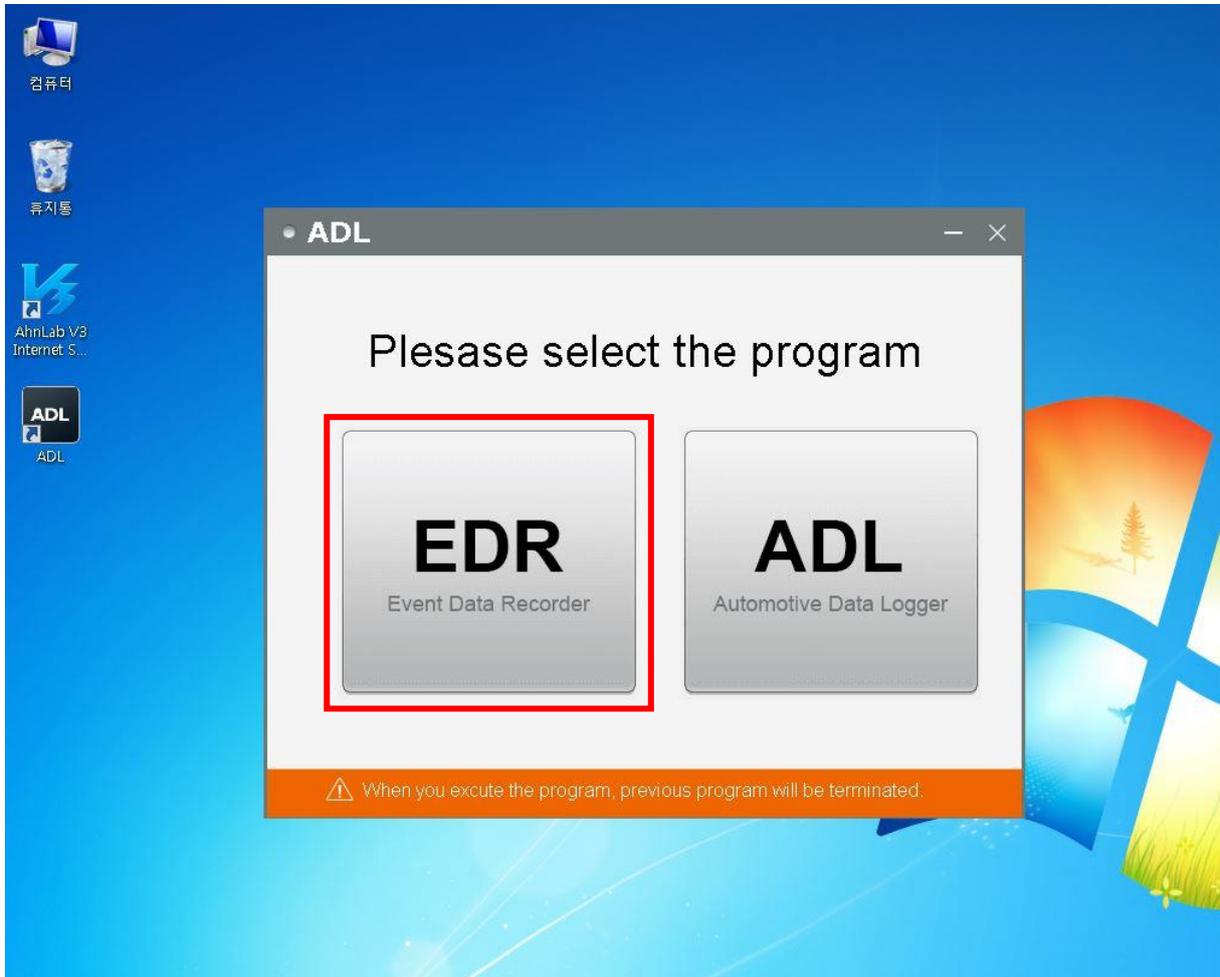
[Figure 2] [EDR2.0] and [ADL] selection screen shown on the main screen

	Main Screen Layout	

Basic EDR2.0 Operations	Chapter: Basic EDR2.0 Operations- Main Screen Layout

The EDR2.0 main page consists of menu title bars for the use of the service.

● The tab features vehicle type selection, initial screen, opening up PDF files, saving PDF flies, summary reports, settings, and Internet updates.

The EDR2.0 program supports 1024*768 resolution.
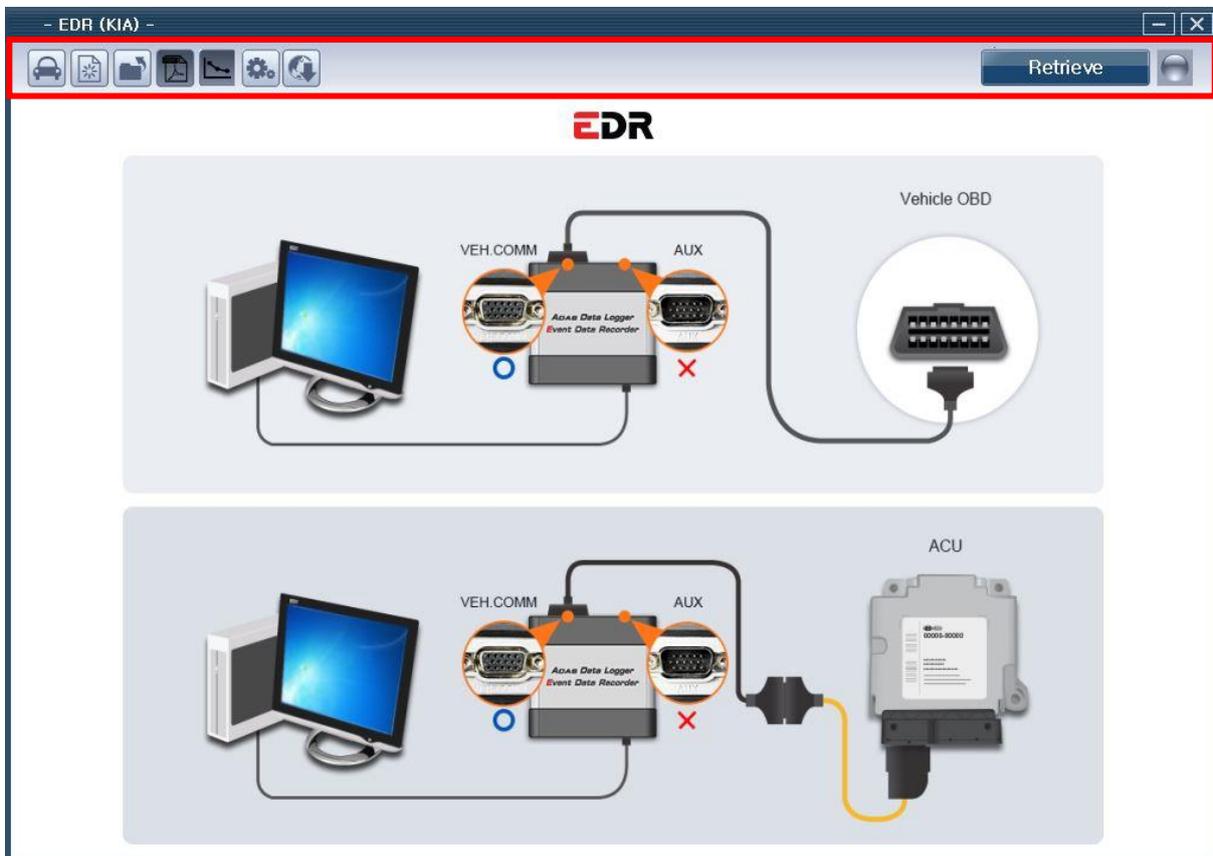
[Figure 1] ADL Communication Main Screen Layout (1024*768)

Tab Menu	
Icon	**Details**
	Click the Vehicle Type icon on the initial screen to select the setting of the vehicle that will be examined and check whether you will initiate an automatic VIN search.
	Click the icon to convert to the initial screen.
	Click the icon to open the saved PDF files.
	Click the icon to save the test results as PDF files.
	Click the icon to summarize and view events in a single page.
	Click the icon to open a screen on product name, copyright information, manual, and languages.
	Click the icon to start the software and ADL firmware update.
Retrieve	A function that starts communication with the vehicle information that the user selected.
	Shows that the program has no communication.
	Shows that the program is in a state of communication.

Vehicle Type Selection and Search

Basic EDR2.0 Operations	Chapter: Basic EDR2.0 Operations- Vehicle Type Selection and Search

Click the "Vehicle Type Selection and Search" button on the EDR2.0's main screen to show a vehicle type selection screen as seen in [Figure 1].

When the EDR2.0 vehicle type selection screen appears, you can select the vehicle type according to the two options below.

You can select the vehicle to be diagnosed according to the two vehicle selection options below.

    1. Entering the 17-digit vehicle identification number (VIN) directly

    2. The user entering the vehicle type directly
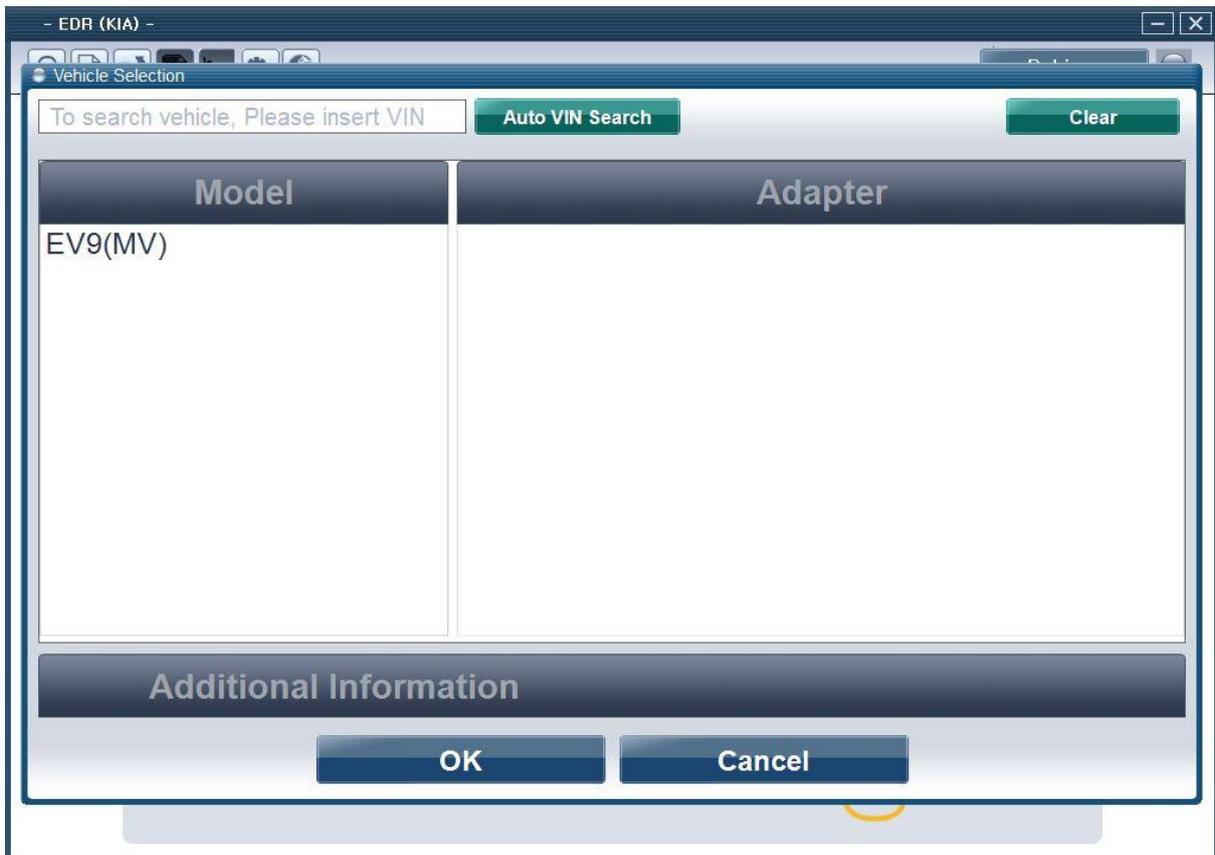
[Figure 1] ADL Communication Vehicle Selection

Vehicle Type Selection Menu Details

Icon	Details
To search vehicle, Please insert VIN	You can enter the vehicle identification number (VIN) here.
Auto VIN Search	You can search the vehicle with the VIN entered on the search bar.
Clear	Resets the searched vehicle.
Model	Shows the manufacturer's vehicle model.
Adapter	Shows the adapter for the vehicle.
OK	Completes the vehicle selection.
Cancel	Cancels the vehicle selection.
Additional Information	Allows entering additional information. (VIN, user, event number, event generation date, tire size, memos.)
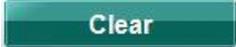
How to select vehicles using VIN

On the VIN search bar, enter the 17-digit VIN (vehicle identification number) and click "Search." The vehicle type will then appear automatically as shown in [Figure 2].
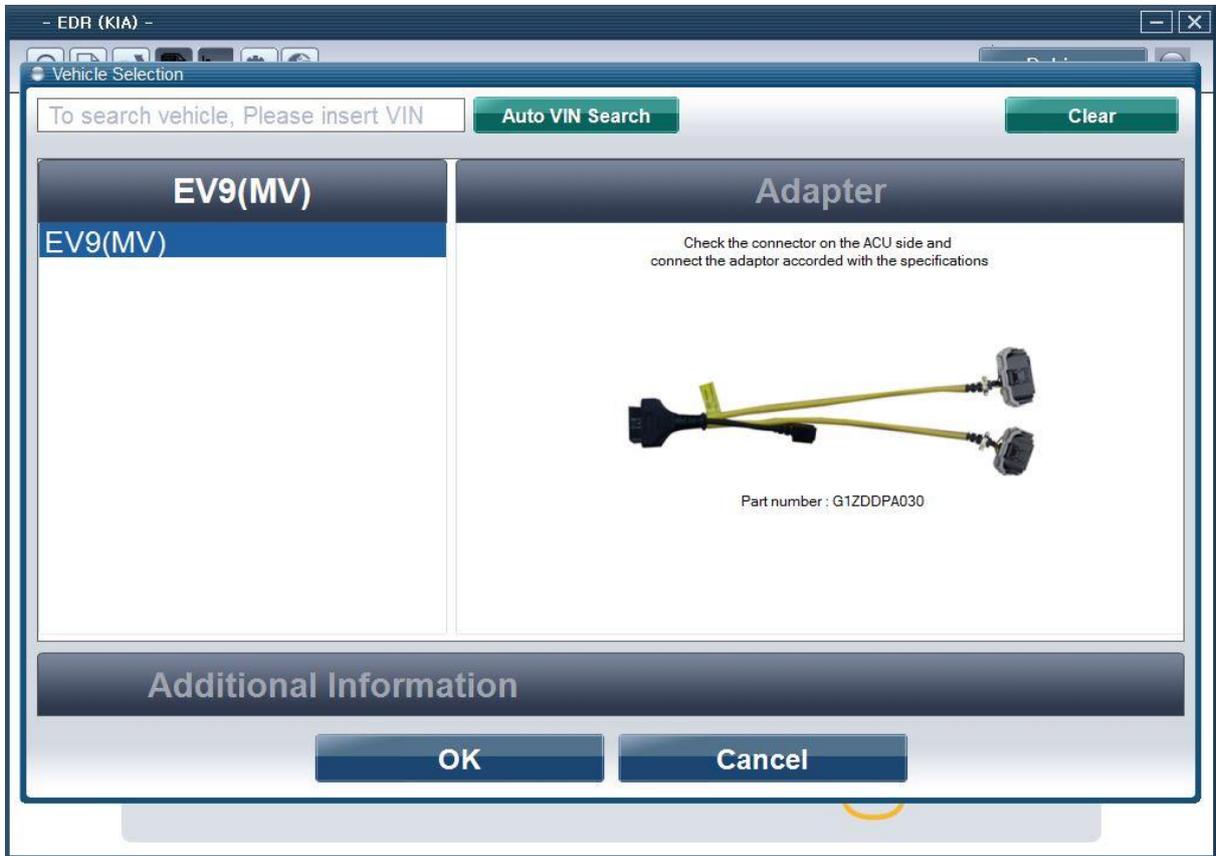
[Figure 2] VIN Input on ADL Communication- All VINs

How to select vehicle type and adapter

When you click "Vehicle Selection," of the EDR2.0, the EDR2.0 vehicle type selection screen will be shown as seen in [Figure 3]. Then select the vehicle type and adapter in consecutive order. Using this function will not allow the VIN search. It will allow vehicle diagnosis, but the type of the vehicle to be diagnosed will not be identified automatically.
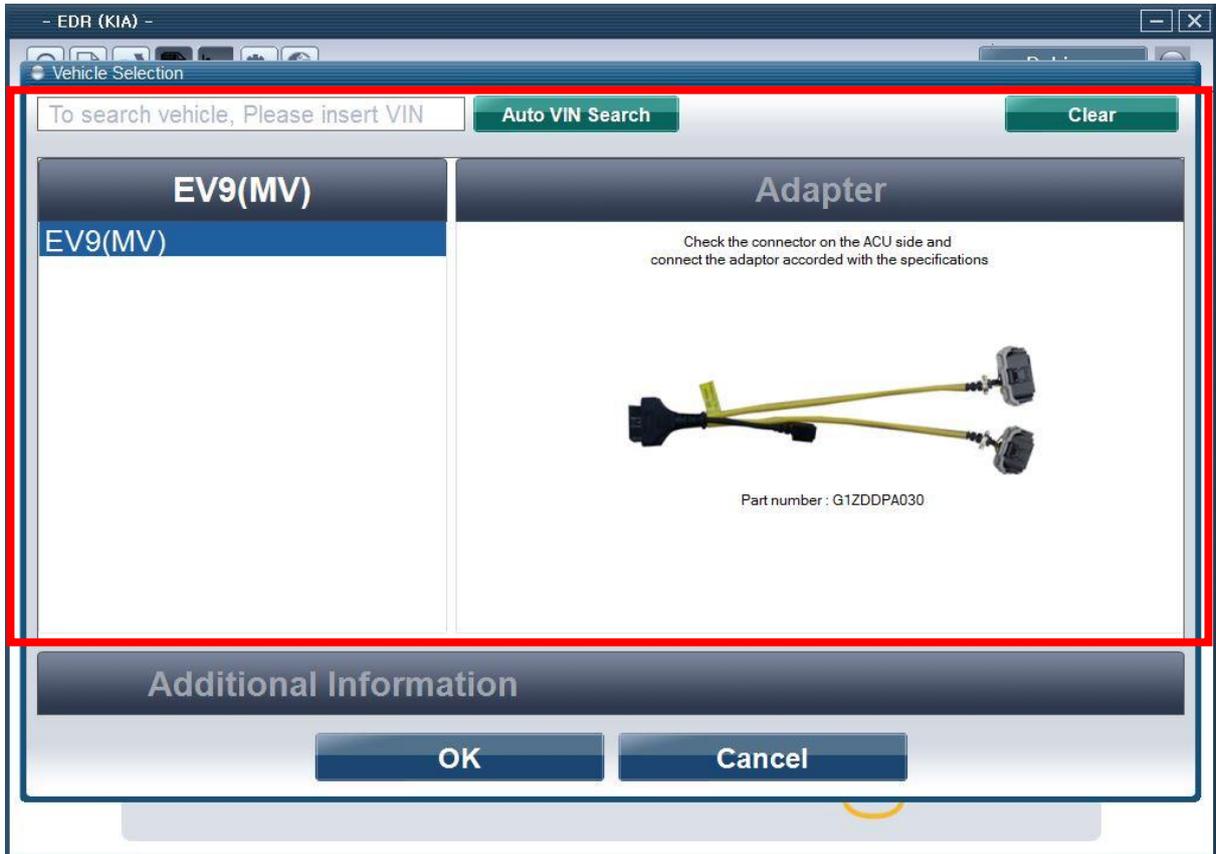
[Figure 3] Direct Selection of ADL Communication Vehicle Type and Adapter

Entering Additional Information

When the vehicle type selection is complete, you can then enter additional information (VIN, user, event number, event generation date, tire size, memos) as seen in [Figure 4].
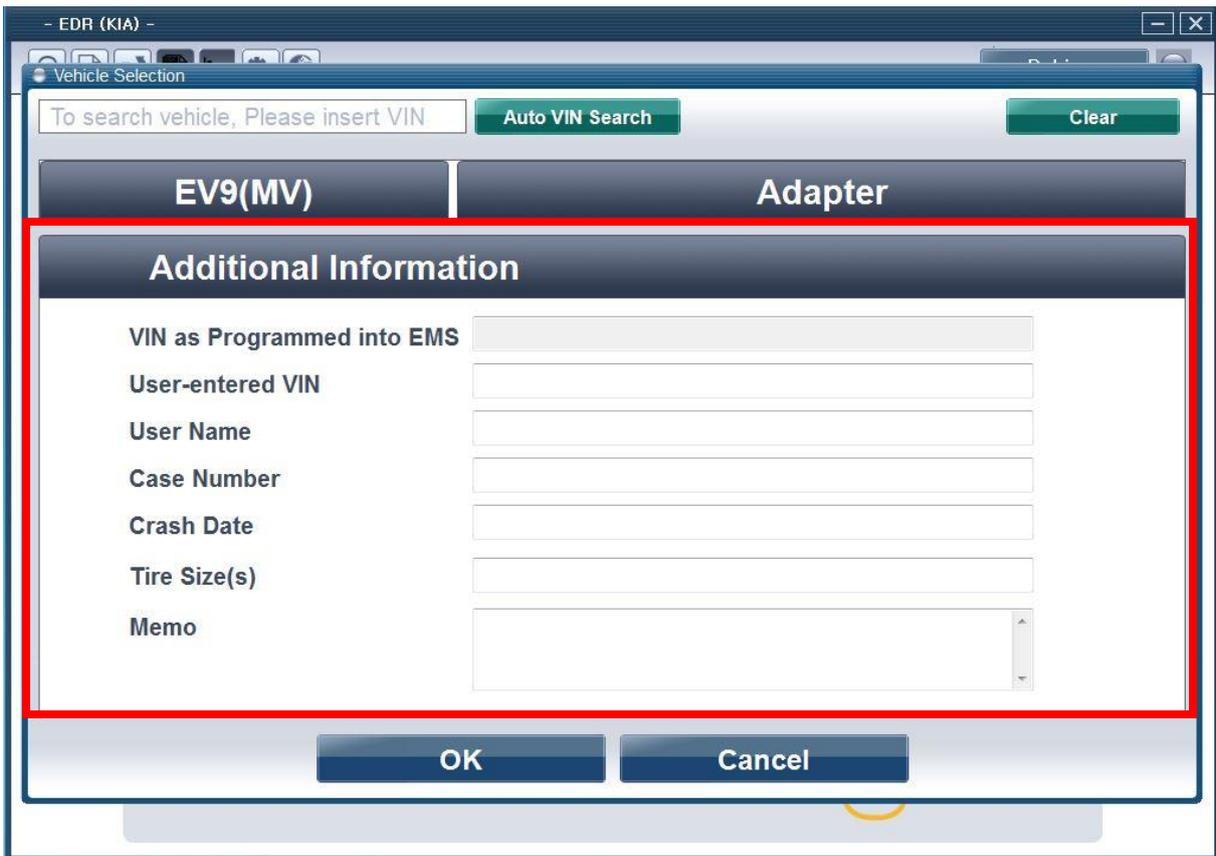
[Figure 4] Entering Additional Information

Connector Component Number Check

After completing the vehicle type selection and additional information input, check the connector component number as seen in [Figure 5] to make a connection to the ACU and ADL connector.

- The connector component number can be ignored for direct communication with the vehicle as it does not require connector linkage.

[Figure 5] ADL Connector Component Number Check

Search

When the linkage between the ADL and connector is complete, clicking the data reception button as seen in [Figure 6] will make the side of the button turn red, generating a pop-up screen to commence searching.

[Figure 6] ADL Communication Search in Progress

Search Complete

When the search is complete, the search result will be shown as a PDF file as seen in [Figure 7].

[Figure 7] Search Complete

Initial Screen

This function allows the initial screen to be shown after clicking the initial screen button as seen in [Figure 8].
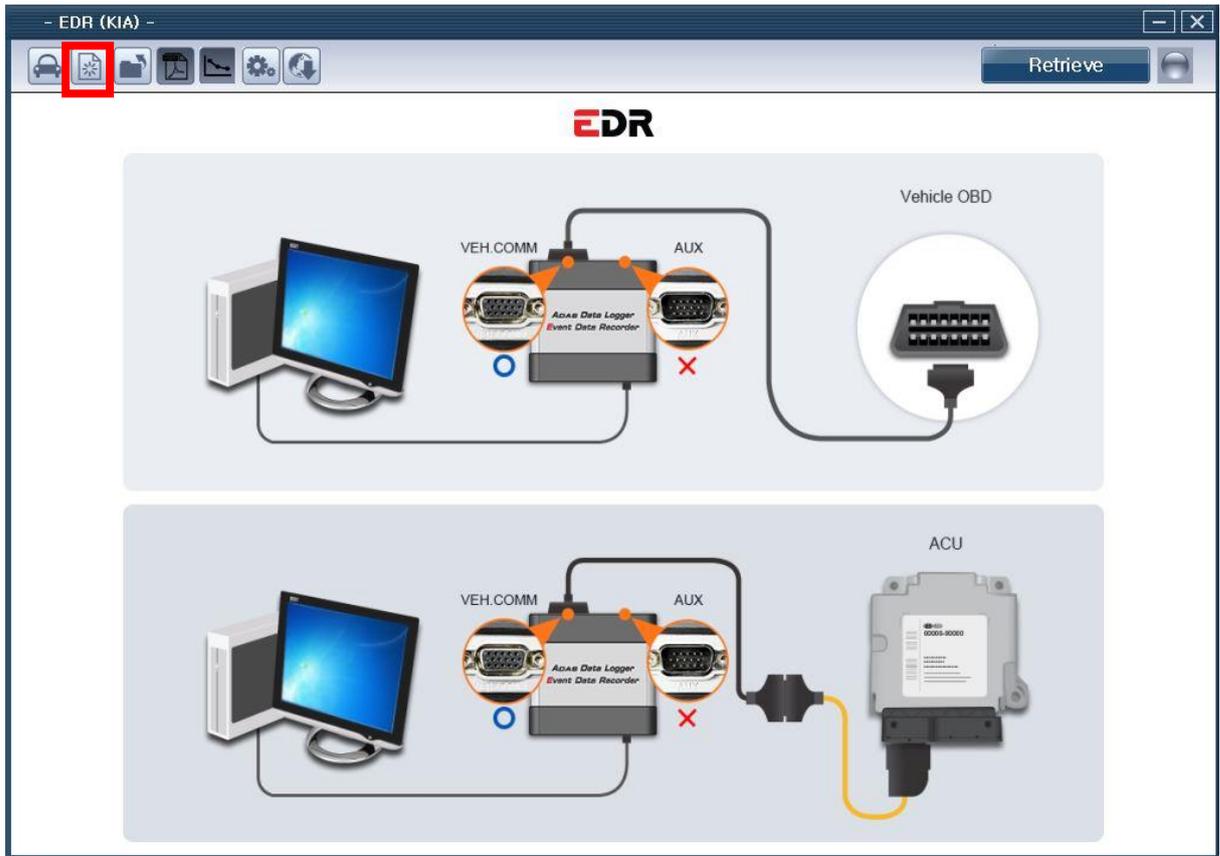
[Figure 8] ADL Communication Initial Screen

Saving PDF Files

This function allows files to be saved by clicking the Save PDF File button as seen in [Figure 9].
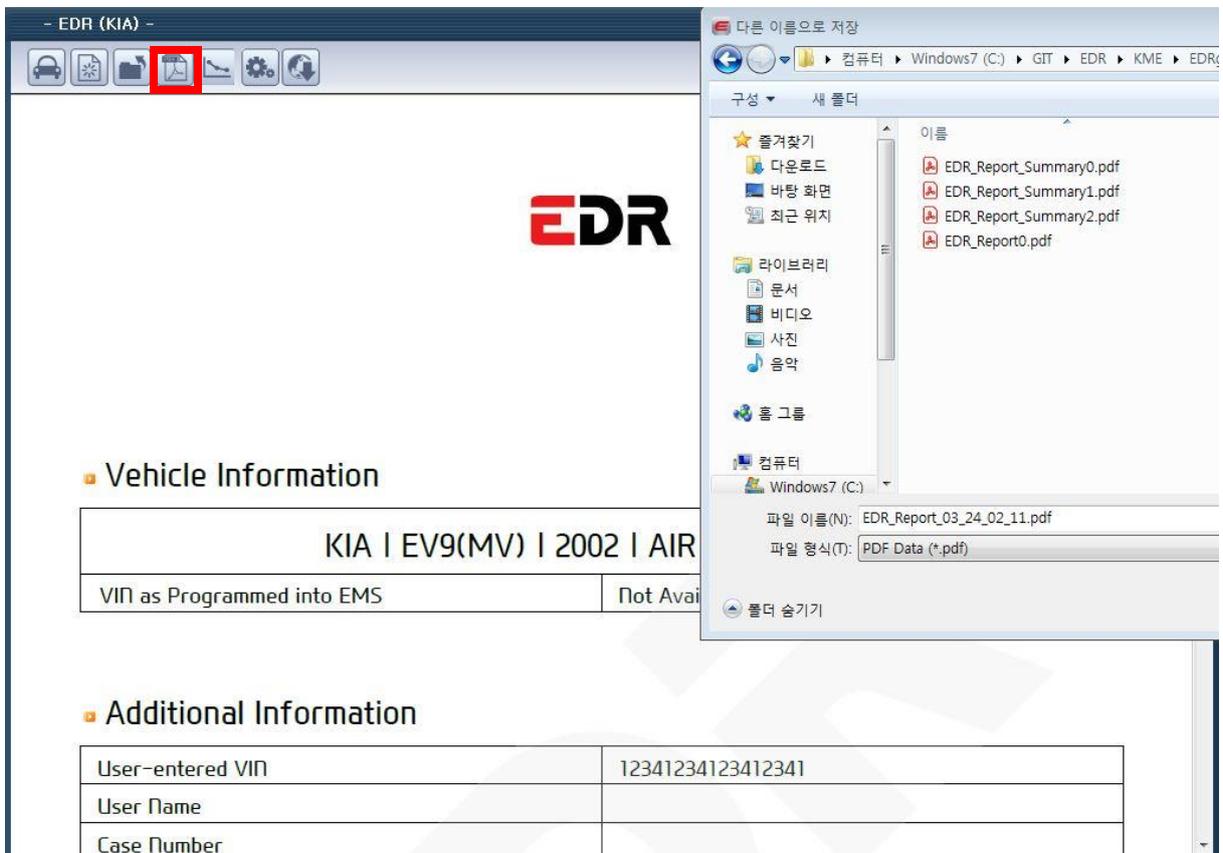
[Figure 9] Saving PDF File

Opening Saved Files

This function allows the saved PDF files to be opened by clicking the Open button as seen in

[Figure 10].
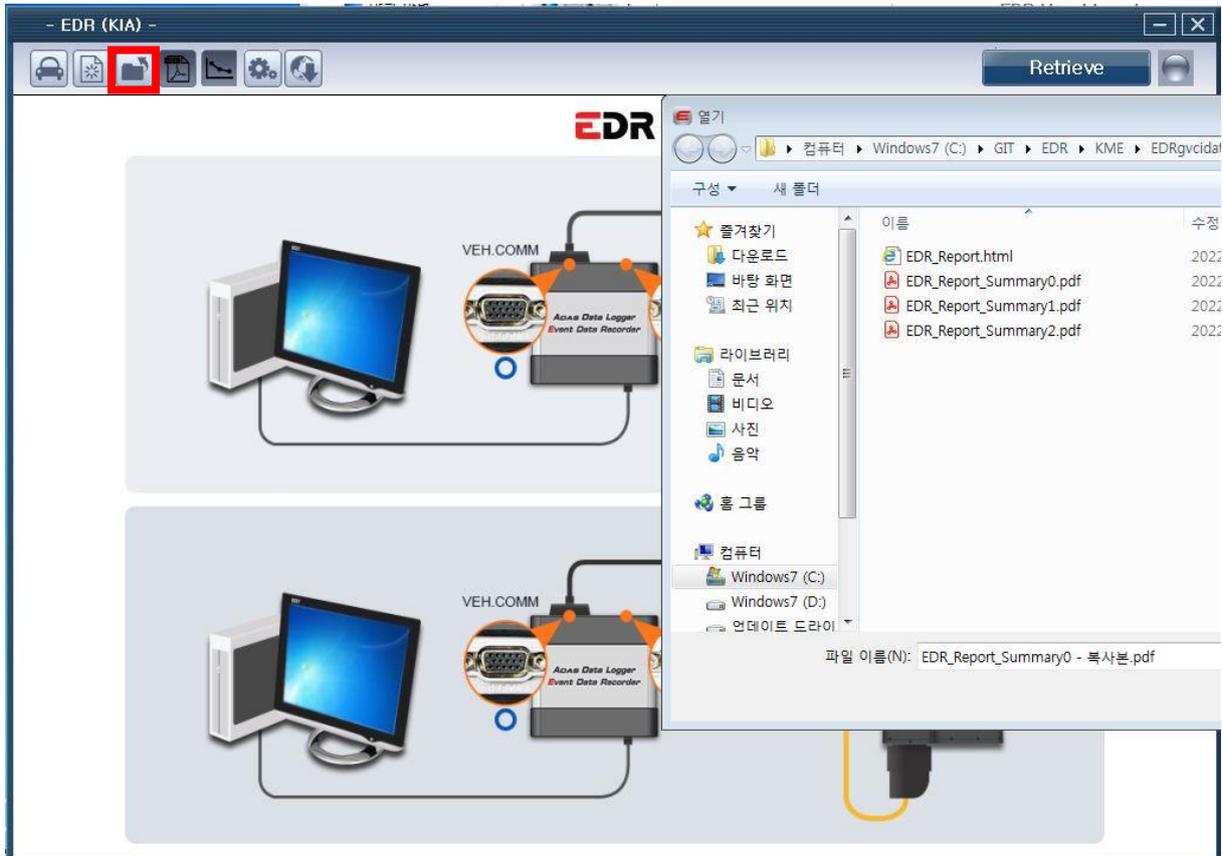
[Figure 10] Opening Saved Files

Single-page Summary of Events

With this function, you can view the PDF file with events summarized into single pages by clicking the Display Summary Report button as seen in [Figure 11].

The categories of the summary may differ depending on the vehicle type, and it will not be shown if there is no event data.

The categories shown on the summary include vehicle speed, engine throttle, control pedal operation status, engine rev count, ABS operation status, steering wheel angle, and gas pedal.
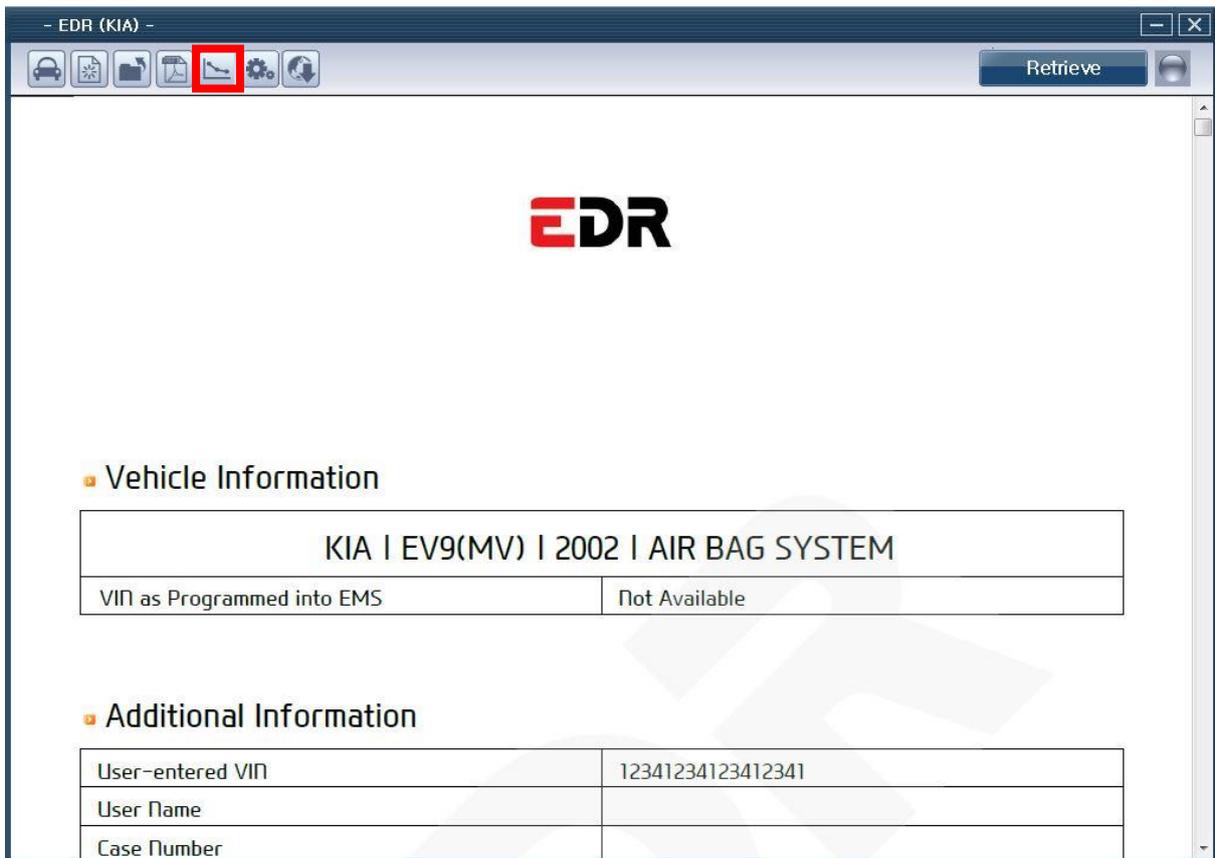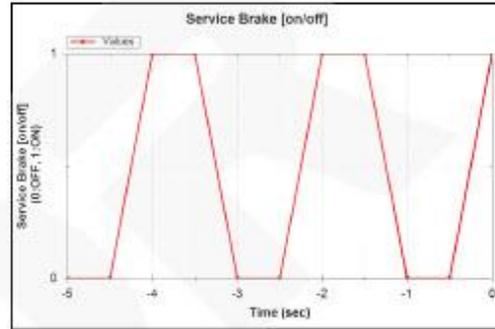

[Figure 11] Single-page Summary of Events

⟨Event 1⟩

Vehicle Information

HYUNDAI	EQUUS(VI)	2016	AIRBAG SYSTEM		
VIN as Programmed into EMS	

Additional Information

User-entered VIN	KMHDB41FBGU000456
User Name	GIT
Case Number	f101
Crash Date	2016.02.23.
Saved-on Date	2016-02-29 10:50
EDR Tool Version	E-D-H-01-00-0014
EDR Report Version	EDR001-R01
Tire Size(s)	18 inch
Memo	sample

Vehicle Speed [kph]

Engine Throttle [%]

Service Brake [on/off]

Engine RPM [rpm]

ABS Activity [on/off]

Steering Input [degree]

<Event 2>
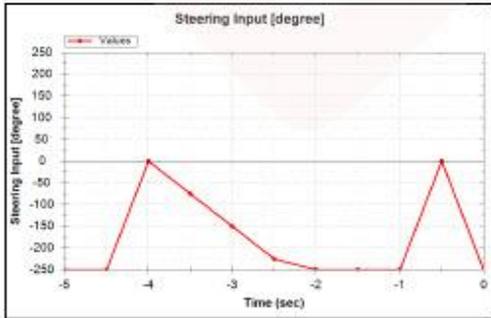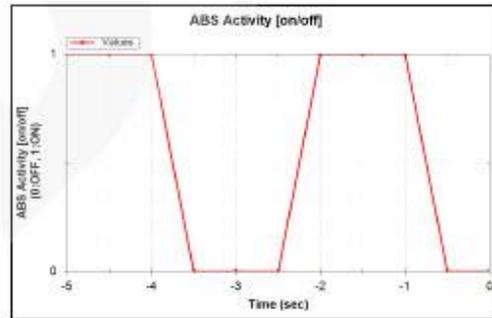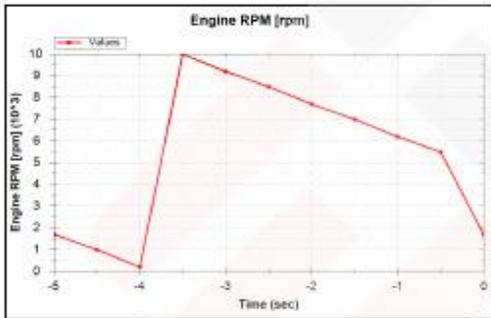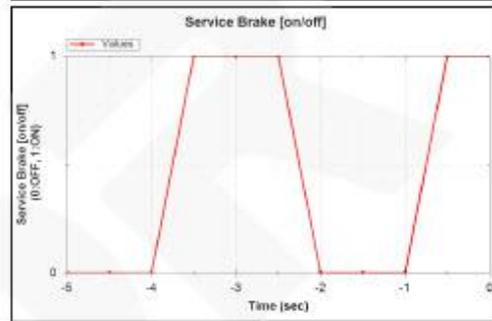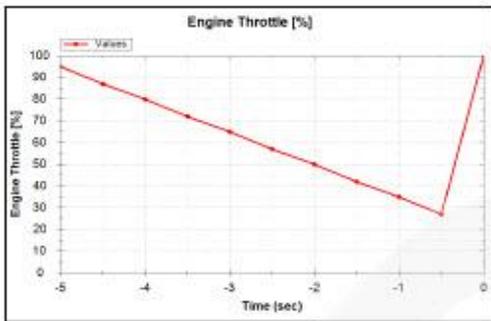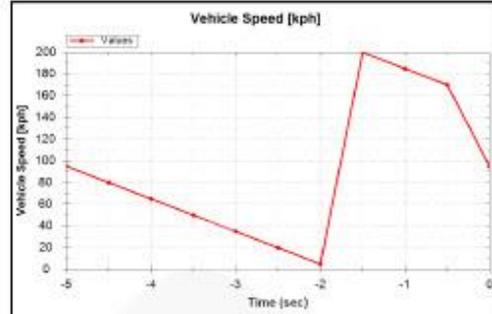
[Figure 12] Event Categories in the Summary

Settings and Internet Update

Basic EDR2.0 Operations	Chapter: Basic EDR2.0 Operations- Settings and Internet Update

Settings

This function allows viewing of the user guide manual and language settings by clicking the Open button as seen in [Figure 13].

[Figure 13] Settings

EDR User Manual

Internet Update

The software update and ADL firmware update function allows updates by clicking the Internet Update button as seen in [Figure 14].

[Figure 14] Internet Update

EDR   **GIT**

Chapter 5 **Appendix**

Disposal of Old Electric and Electronic

Equipment

EDR Disposal of Old Electric and Electronic Equipment **GIT**

EDR2.0- Appendix	Chapter: Appendix- Disposal Method

The WEEE (Waste Electric and Electronic Equipment) shown in [Figure 1] can be seen at the back of the ADL main body.

Please comply with the regulation guide on WEEE.

[Figure1] WEEE Symbol

If this symbol is seen on old electronic and electric waste equipment or their packaging, do not treat them as domestic waste. Instead, they should be delivered to their collection sites for electric and electronic equipment recycling. This allows potential harm to public health and the environment to be prevented by confirming the proper disposal of the given product. If the due procedure is not followed, the product may be discarded inappropriately. Please remember that recycling this product will help preserve natural resources. Please refer to your district government, domestic waste disposal service, or the agency where the product was purchased for more details on recycling this product.