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Unit 5. Appendix

ADL

GIT

Unit 1 Getting Started

Read it first.

Introduction to ADL

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ADL Please read it first

Getting Started (Unit: Getting Start – Read it first

Preface

Thank you for purchasing ADL (ADAS Data Logger) released by G.I.T CO.,LTD.(Global Information Technology Co., Ltd.)
For safe and normal use of ADL products, please read and understand this user's manual before use.
This device has been registered for electromagnetic wave conformity for business use, so sellers or users should be aware of this.

Notice on patents, trademarks, copyrights, publication rights, and intellectual property rights in

Precautions for trademarks

1. Manufacturer: G.I.T CO.,LTD.
2. Country: The Republic of Korea (KR)
3. 056655, G.I.T. Building, 87 Macheon-ro, Songpa-gu, Seoul, ROK
4. Rated voltage: DC 9 – 30⎓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. Declare that this product in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Limitation OF Liability

- All contents and images used in this user's manual may be modified or attached/deleted without notice owing to improvement/betterment of product functions and specifications.
- The user's manual in the ADL program is updated whenever there is a change in the manual, so please always update the ADL program online.

Precautions for Product Use Environment

- Do not store the product at too low or too high temperatures.
- Do not expose the product to direct sunlight for a long time.
- Do not use or leave the product for a long time in a hot environment such as in a car parked in the summer.
- Do not put the product near or into electric heaters, heating utensils, or high-pressure containers.
- Do not store or use in hot and humid places.
- When using near the driving part inside of the vehicle, be careful not to contact the cable or the equipment part.
- Please use the product in a safe environment not to be damaged by impact or dropping.

ADL Introduction to ADL

Getting Started

(Unit: Getting Started – Introduction to ADL

Introduction to ADL (ADAS Data Logger) equipment

It consists of ADL body, ADL connector, and ADL software and so on.

1.ADL body: It is a device to communicate by connecting with the vehicle's ECU (Electronic Control Unit).
2.ADL software: A program to read and analyze Event Data by communicating with ADAS_DRV2 ECU.
3.ADL connector: It is a device to connect the ECU (Electronic Control Unit) with the vehicle and the ADL body.

Configuration of ADL

It is composed of ADL body, ADL connector, and ADL software and so forth.

1. ADL body: It a device to communicate information by connecting with the vehicle's ECU (Electronic Control Unit).
2. ADL software: A program to read and analyze Event Data by communicating with the vehicle's airbag ECU.
3. ADL connector: It is a device to connect the vehicle's ECU (Electronic Control Unit) with the ADL body,

ADL Warnings and precautions for safety

This unit includes warnings and precautions for the safe and correct use of the product and users must read and understand the instructions in this unit before using the product.

Warnings

The user is responsible for all damage occurred by which one should not understand the contents of ADL user's manual enough or the manipulation using the ADL user's manual other than the contents of this user's manual.

- For cables, adapters, and all other parts and accessories connected to or used with ADL products, you should use genuine products manufactured by G.I.T. Co., Ltd.
- Please use the product whether or not all cables are exactly connected before use.
- Do not remove the power cable if the product is not turned off.
- Do not shock the ADL product.
- Do not connect the ADL to other devices than the vehicle to be able to connect with the ADL.
- Treat the product within the operating temperature and humidity.
  (In terms of temperature and humidity specifications, please refer to the specifications and functions page in the manual.)
- Do not use it for any purpose other than the purpose of the ADL product.
- If you arbitrarily disassembled, transformed or remodeled ADL products, normal services will not be provided, so please be careful.
- We are not responsible for any warranty and technical support and so on for products not produced by GITI.
- When connecting the ADL with an AC/DC adapter, do not use an adapter other than the specified AC/DC adapter.
- After connecting the cable to the ADL body first, then you should apply the power (vehicle power, adapter power) and turn the power switch "ON".

ADL Warnings for environmental protection

Waste products that have reached the end of their lifespan must be disposed of in accordance with the guidelines set by the laws regarding the Resource Circulation Act and the Electric/Electronic Product Disposal Act.

Please comply with the contents of the following (warnings) when disposing the product.

Warnings

- When an ADL product is disposed of at the end of its useful life, it must not be disposed of with general household waste.
- When an ADL product has reached the end of its service life and is no longer used, it must not be arbitrarily incinerated or buried.
- For inquiries regarding the disposal of ADL products, please contact GITI Headquarters.

Unit 2 ADL Components

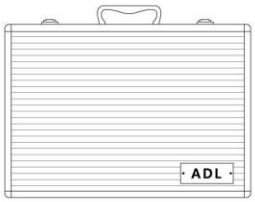
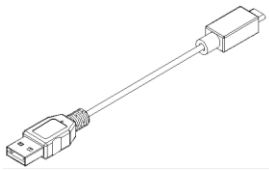
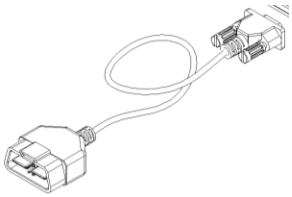
ADL Basic Components

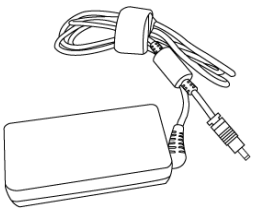
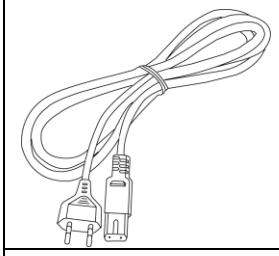
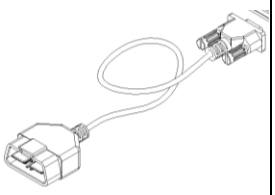
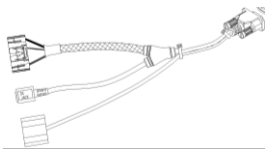
ADL components

ADL Basic Components

ADL components

(Unit: ADL Components – Basic Components

Part Name	Part number	Explanation	Quantity
ADL program 	G1VHEDB001	ADL program USB	1
Carry-on bags 	G1DDDHA002	A carry bag for your EDR Product	1
ADL body 	G1ZDDMN001	The main body is connected to the vehicle and the controller and performs scan tool function, etc.	1
USB C-Type cable 	G1WDDCA011	This cable is used to communicate with the ADL main body and the information terminal (laptop) by wire. Cable length 1.0m	1
OBD to D-SUB(Male) cable 	G1DTDCB011	This cable is connected to the main body and the vehicle's OBD-II diagnostic contactor and is used for HS CAN communication with the vehicle. (Including vehicle power supply) Adapter length 1.5m	1

Part Name	Part number	Explanation	Quantity
AC/DC power adapter 	G1CDDPA012	This adapter is connected to the AC power cable and used to power the ADL.	1
AC power cable 	G1CDKCA001	This is the AC power cable used to supply power to the ADL by using AC power. Standard: IEC 60320 C13	1
OBD to D-SUB(Female) cable 	G1DTDCB017	This is an Ethernet 100BASE-TX communication cable that is connected to the main body and the vehicle's OBD-II diagnostic contactor and is used for vehicle communication. (Including power supply) Cable Length: 1.5m	1
Diagnostic adapter [D-SUB(Male) to Ethernet-T1 cable] 	G1DTDCB018	This is an Ethernet 100BASE-T1 communication cable used for ADAS_DRV2 ECU single unit communication. (Adapter power supply is separate) Cable Length: 0.4m	1

- Diagnostic adapters may be added or changed according to new vehicle models and ADAS_DRV2 ECU specifications.

ADL

GIT

Unit 3 ADL Basic Functions

ADL Specifications and Features

How to operate ADL power ON/OFF

ADL main body and DLC cable connection

ADL Specifications and Features

Basic functions

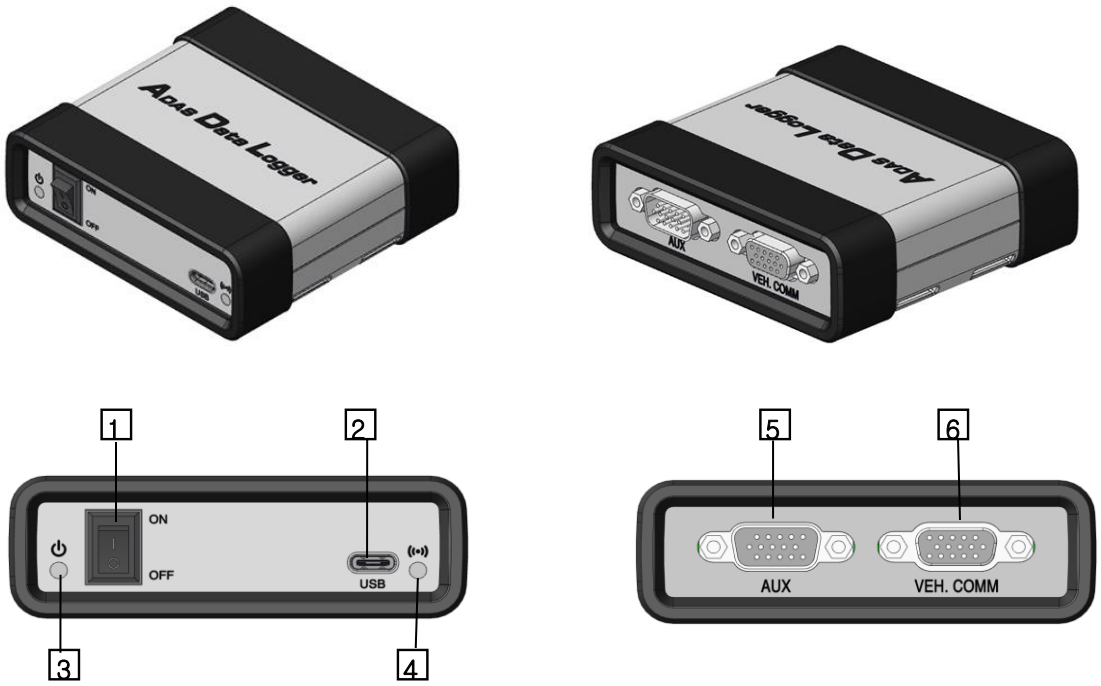
(Unit: Basic Functions – ADL Specifications and Functions

ADL body detailed description

General Specifications

Item		Explanation	
Micro-controller		ARM 32-bit Cortex™-M7 Core / 480MHz	
Storage space		RAM 1MByte Flash 2MByte	
working voltage		9~30V DC	
Work environment (Temperature/ Humidity)	At work	Temperature	- 20℃ ~ 60℃
		Humidity	Non-condensing @ 0℃ to 10℃ (32°F to 50°F) 95%RH @ 10℃ to 30℃ (50°F to 86°F) 70%RH @ 30℃ to 50℃ (86°F to 122°F) 40%RH @ 50℃ to 70℃ (122°F to 158°F)
	While storing	Temperature	- 30℃ ~ 80℃
		Humidity	Non-condensing @ - 20°C to 80°C (-4°F to 176°F)
Wired 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)	
Texture		Case (PC + ABS), shroud (TPE)	
Weight		146g	

Basic configuration of ADL body



[Figure 1] ADL body configuration diagram

1. Main power switch
2. Main power LED (Red)
3. USB connector: C-Type USB cable connection
4. Vehicle Communication LED (Green/Red)
5. AUX D-SUB 15PIN (Male) connector: Ethernet 100BASE-TX communication and power supply cable connection
6. VEH. COM D-SUB 15PIN (Female) connector: Ethernet 100BASE-T1 communication and power supply cable connection

ADL Power ON/OFF method and switch operation

Basic functions

(Unit: Basic functions – ADL power operation

ADL main body power ON/OFF

When power is not supplied from the vehicle's diagnostic connector, connect the ADL product to the vehicle and press the ⏻ power switch. The product turns “ON” or “OFF”.

[Figure 1] Power switch of ADL body

Status light

On the front of the main body, there is a display window that showcases the operating status of the main body with LEDs.

[Figure 2] ADL body LED status of

POWER .

It shows the standby status when the main body power is applied.

- Red: Power on and product standby status

VEH.COMM (for vehicle communication)

It shows the status of communication between the main body and the vehicle.

- Green blinking (flashing): While communicating between vehicle and ADL body (The LED turns off when the program terminates.)

ADL main body and main DLC cable connection

Basic functions

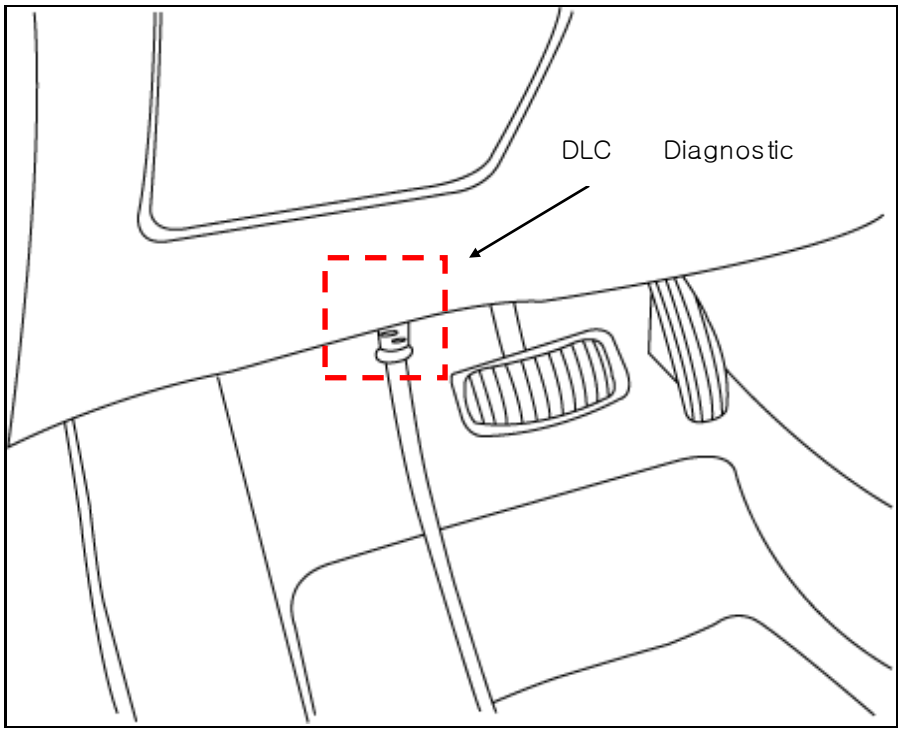
(Unit: Basic functions – DLC cable connection

main DLC cable installation

First of all, check the location of the vehicle's diagnostic connector.

The location of the diagnostic contactor may vary depending on the vehicle. Please check the correct location of the DLC in the vehicle and the adapter used.

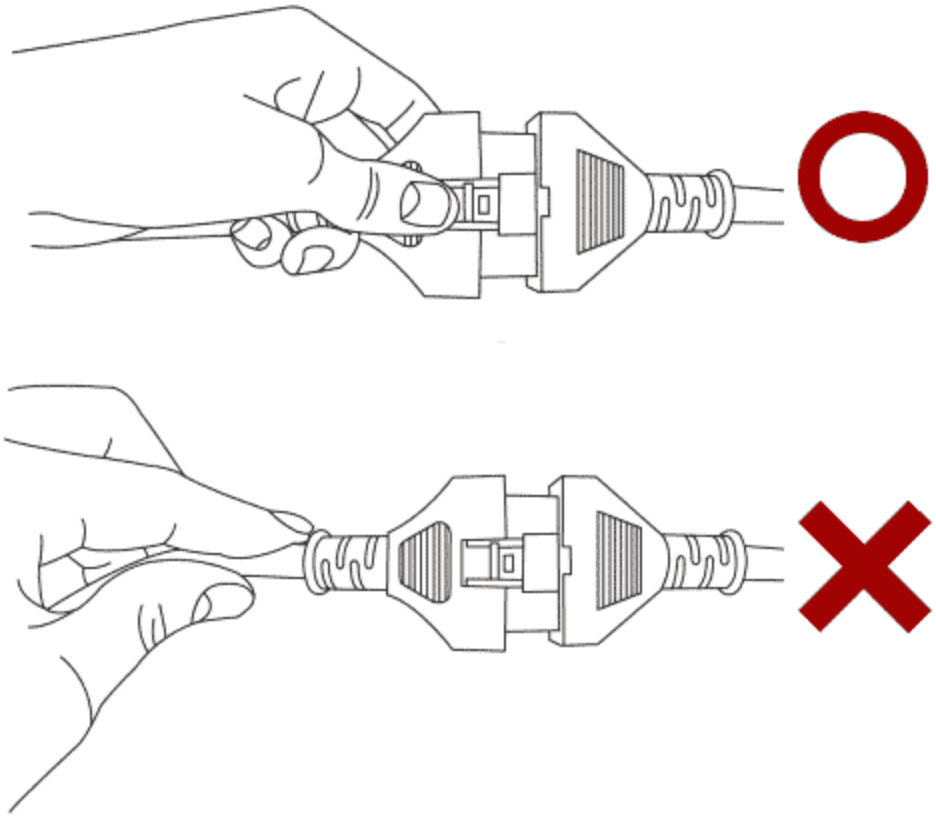
Only, when connecting the DLC cable between the main body and the vehicle, please progress to connect the ADL main body cable first.



[Figure 1] An example of connecting vehicle diagnostic connector with DLC main cable.

Warnings

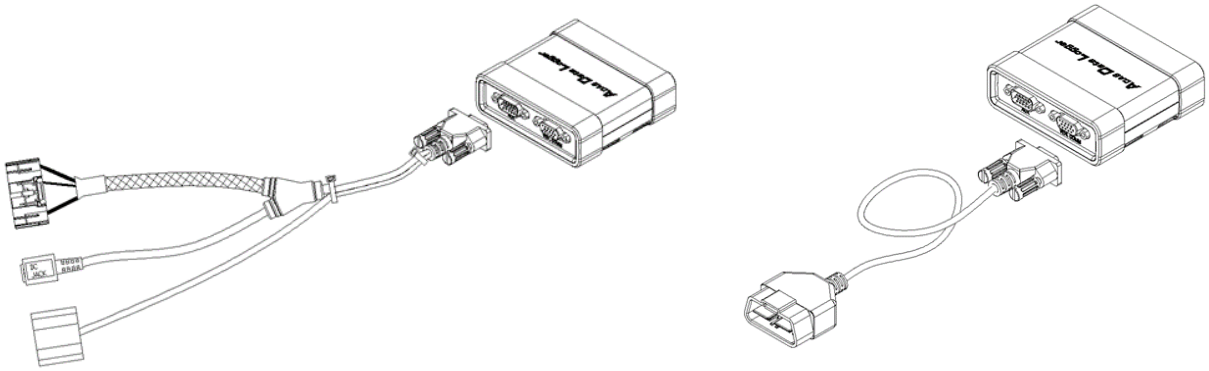
- When disconnecting the DLC main cable, you must separate it after releasing the lock clip on the connector part. If you pull or twist the wire to separate it, you should be careful as it may cause damage to the cable and connector.



[Figure 2] Correct method to disconnect the main DLC cable

Connecting the DLC main cable to the ADL body

To connect the ADL body to the vehicle's diagnostic connector, the DLC main cable must first be connected to the ADL body. To connect the ADL main body and the DLC main cable, as shown in [Figure 3], you should align the DLC main cable direction and push it toward the ADL main body to connect. After connection, please use it after rechecking that the ADL main body and DLC main cable are connected correctly.



[Figure 3] Connecting the DLC main cable to the ADL body

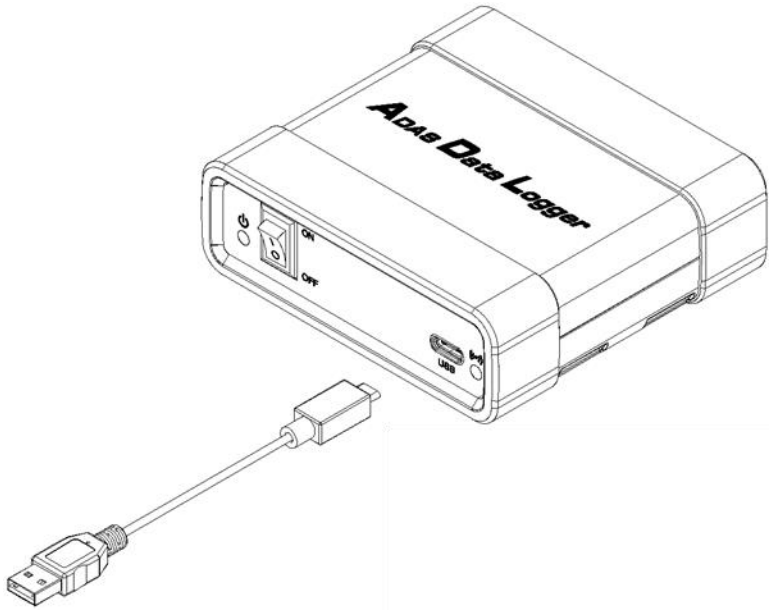
Warnings

- When connecting the ADL body to the vehicle, the location of the vehicle's diagnostic connector must be checked and then connected correctly. If the connection is poor, communication with the vehicle may be compromised.

USB C-Type cable connection

A mini USB C-Type cable is used for communication between the ADL body and the information terminal (laptop).

When connecting the ADL body with a USB C-Type cable, be sure to check whether the connection between the ADL body and the USB C-Type cable connector is complete. If the cable is suddenly disconnected during communication, it may cause a failure.



[Figure 5] Connecting the USB C-Type cable to the ADL body

When using a USB C-Type cable connected to an information terminal (laptop), be careful not to disconnect the USB C-Type cable.

For safe use of the product, be sure to use the USB C-Type cable provided by G.I.T.CO., LTD.

ADL

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Unit 4 ADL Basic Operation

Getting Started

Main screen layout

Car type selection and search

Save and Open

Settings and Internet Updates

ADL Start procedure

ADL Default Behavior (Unit: ADL Default Behavior – Start

Start ADL

After installing the software, start ADL by double-clicking the shortcut icon on the desktop as shown in [Figure 1] below.

[Figure 1] ADL shortcut icon displayed on the desktop

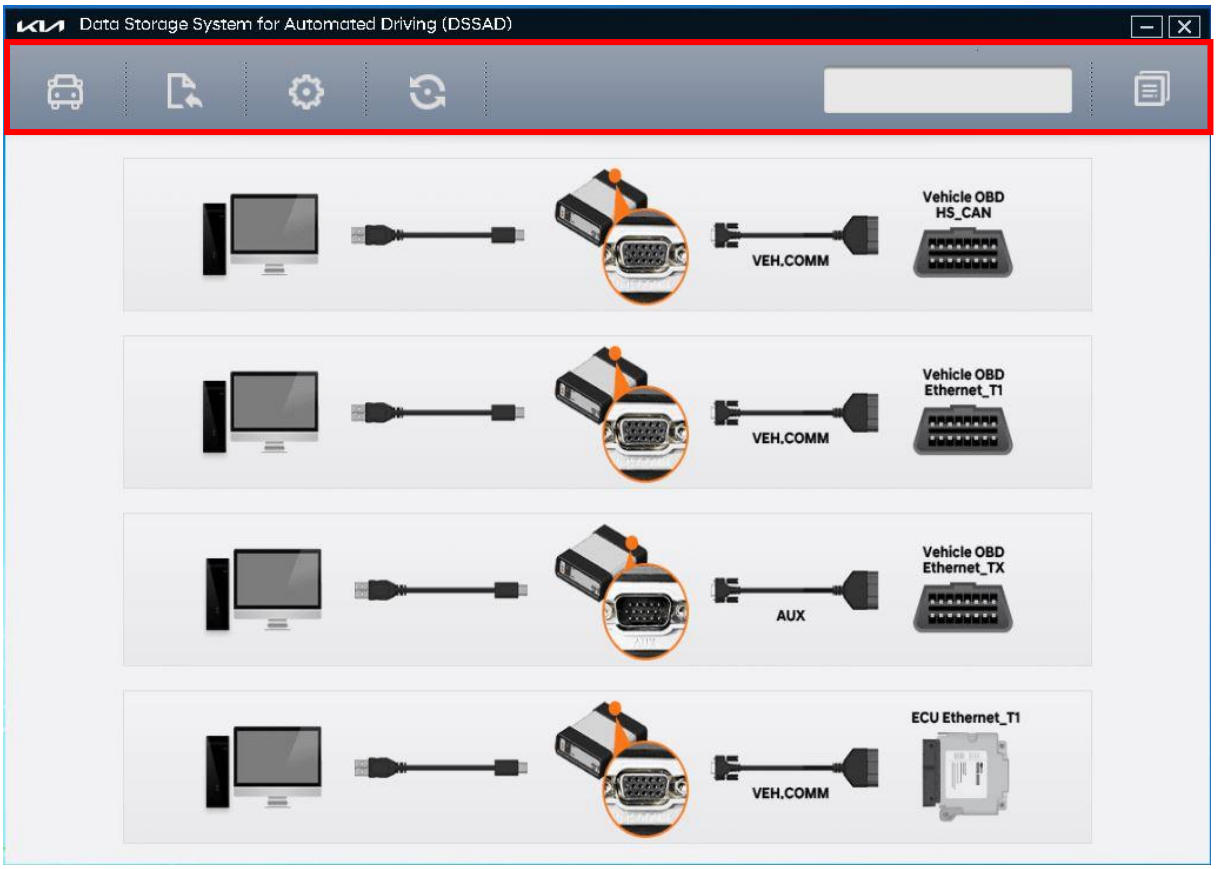
ADL Main screen layout

ADL Default Behavior	(Unit: ADL Default Behavior – Main Screen Layout

The ADL main page consists of a menu bar for using ADL.

- In the tab menu, you can select a vehicle model, open a PDF file, set, update the Internet, and extract data.

ADL program supports 1024*768 resolution.



[Figure 1] Main screen layout (1024*768)

Tab menu

Icon	Explanation
	If you click the vehicle model selection icon on the initial screen, it supports the vehicle settings you want to check and whether the VIN automatic search function is running or not.
	This function allows you to open and view saved PDF files.
	This is a function that allows you to set user guidance and language.
	Internet update and ADL update functions.
	This is the function to extract the data of the connected controller.

ADL Car model selection and search

ADL Default Behavior

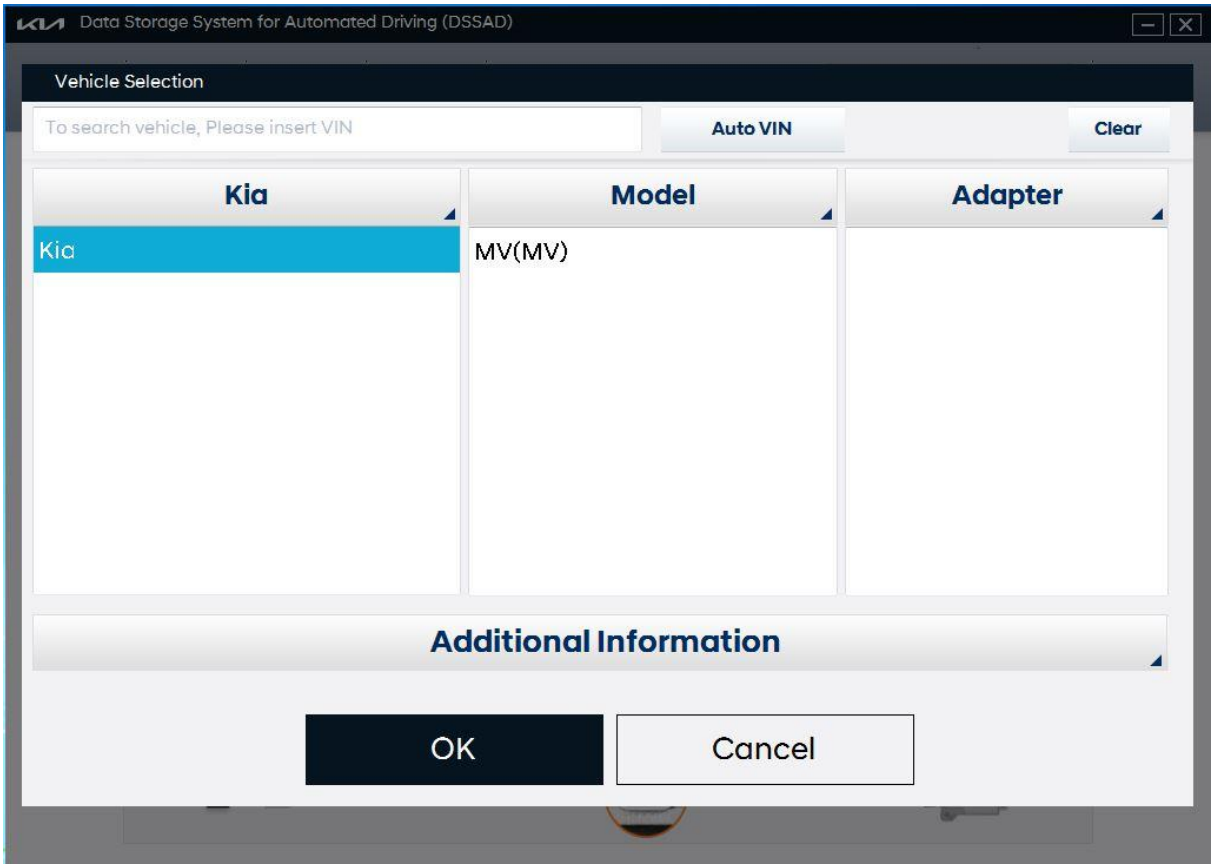
(Unit: ADL Basic Operation – Select and Search Vehicle Model

If you click the “Select Vehicle Model” button on the ADL main screen, the vehicle model selection screen is displayed as shown in [Figure 1].

When the ADL vehicle model selection window is displayed, you can choose the vehicle in 2 methods as follows.

You can select the vehicle you want to diagnose in 2 methods.

1. Selecting by directly entering the 17-digit vehicle identification number (VIN number).
2. Selecting the vehicle type by entering the vehicle type directly by the user.



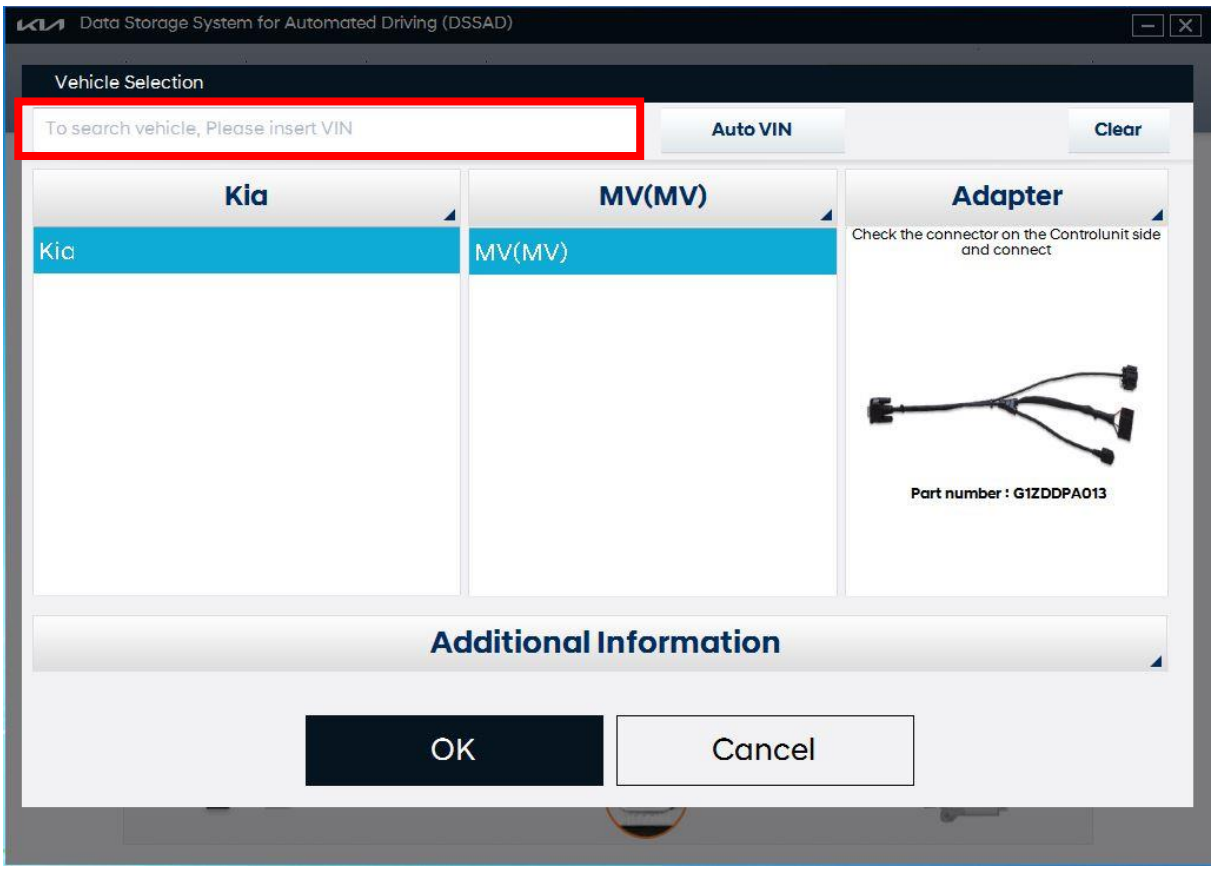
[Figure 1] Vehicle model selection

Menu explanation of car model selection

Icon	Explanation
To search vehicle, Please insert VIN	You can enter your vehicle identification number (VIN).
AUTOVIN	You can search for a vehicle by using the vehicle identification number (VIN) information entered in the search window.
Clear	The selected vehicle model is initialized.
Model	The manufacturer's vehicle model is displayed.
Adapter	The vehicle's adapter is displayed.
OK	Vehicle selection is completed.
Cancel	The vehicle model selection is canceled.

How to select a vehicle by using VIN

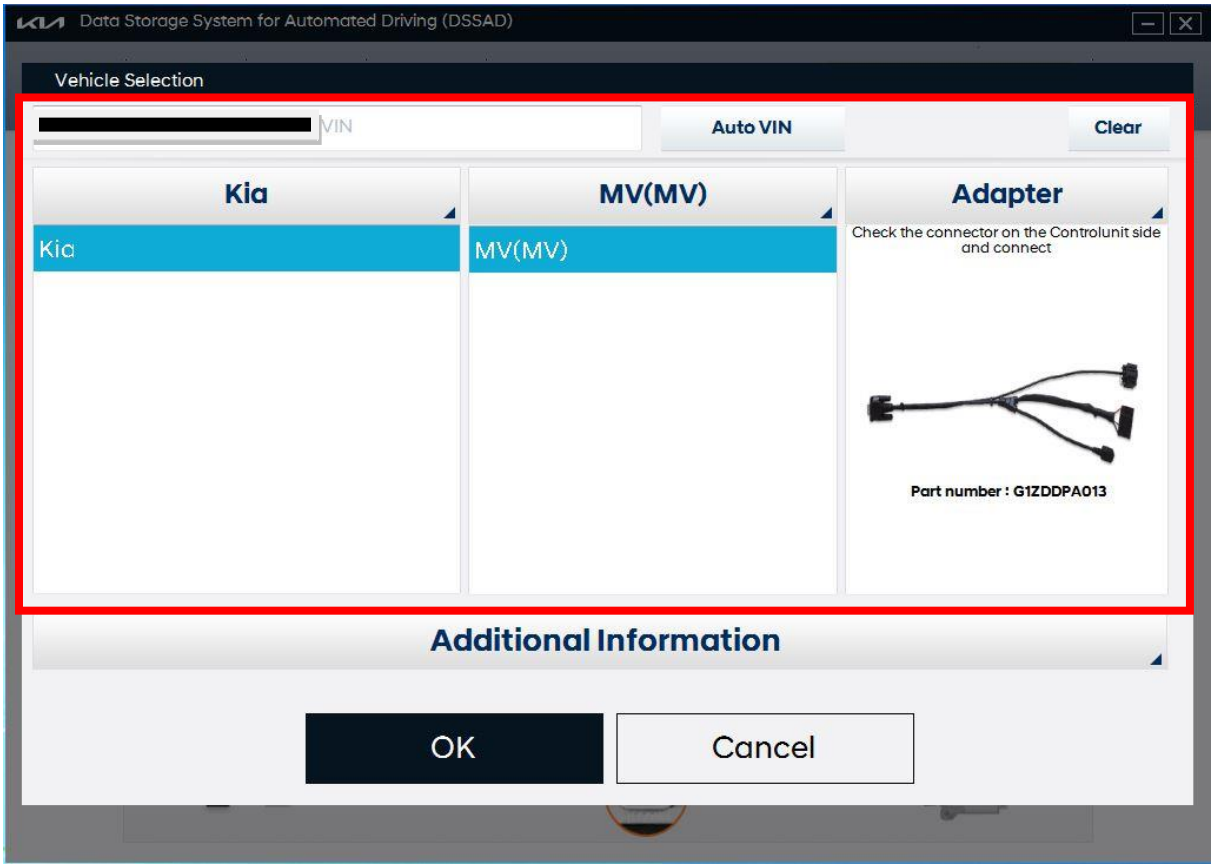
Please enter the 17-digit VIN (vehicle identification number) in the VIN input window and click the "OK" button. The vehicle model is automatically displayed as shown in [Figure 2].



[Figure 2] VIN Input – Total VIN

How to select a vehicle model and adapter

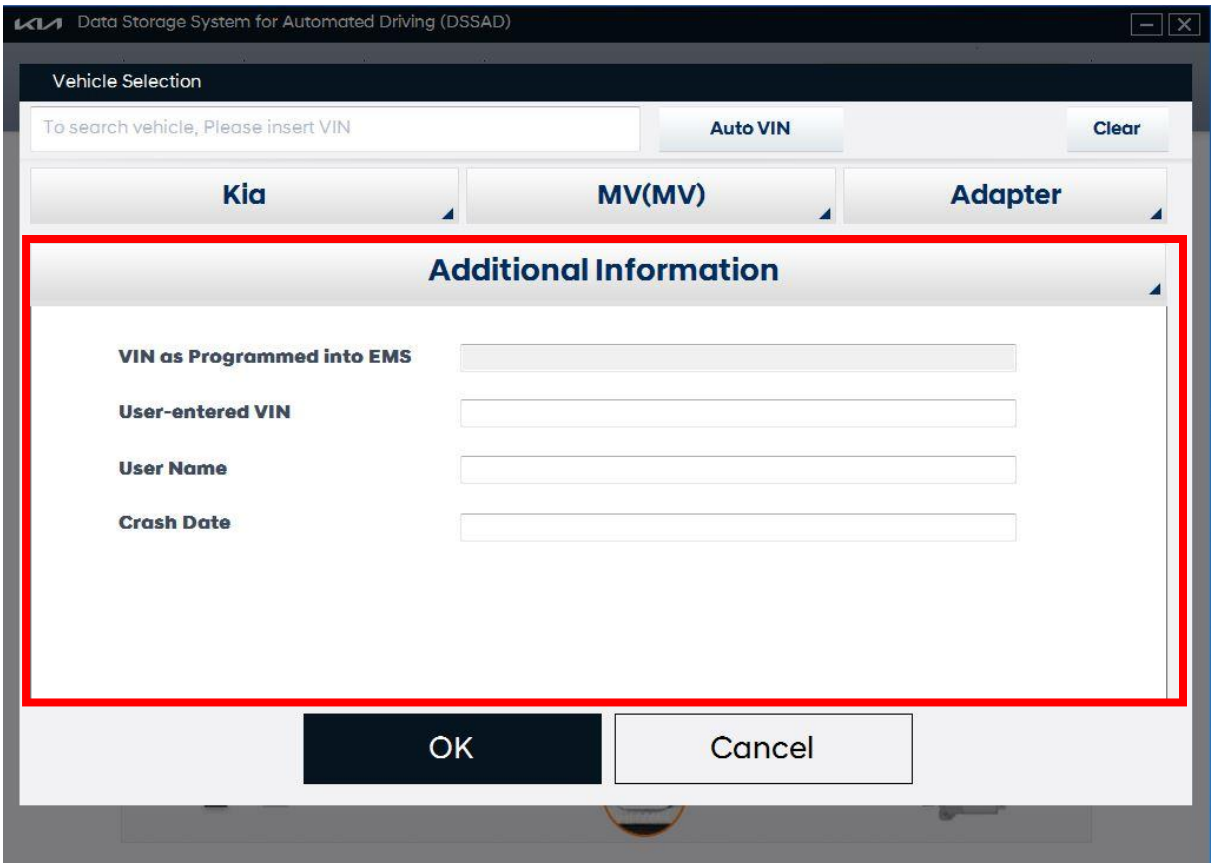
When ADL vehicle model selection is clicked, the ADL vehicle model selection window is displayed as shown in [Figure 3], and the vehicle model and adapter are sequentially selected. If this method is used, the VIN search function does not work, and vehicle diagnosis is available, but the vehicle information to be diagnosed cannot be automatically checked.



[Figure 3] Direct selection of vehicle model and adapter

Enter additional information

After selecting the vehicle model is completed, additional information (vehicle number, user, and event date) can be entered as shown in [Figure 4].

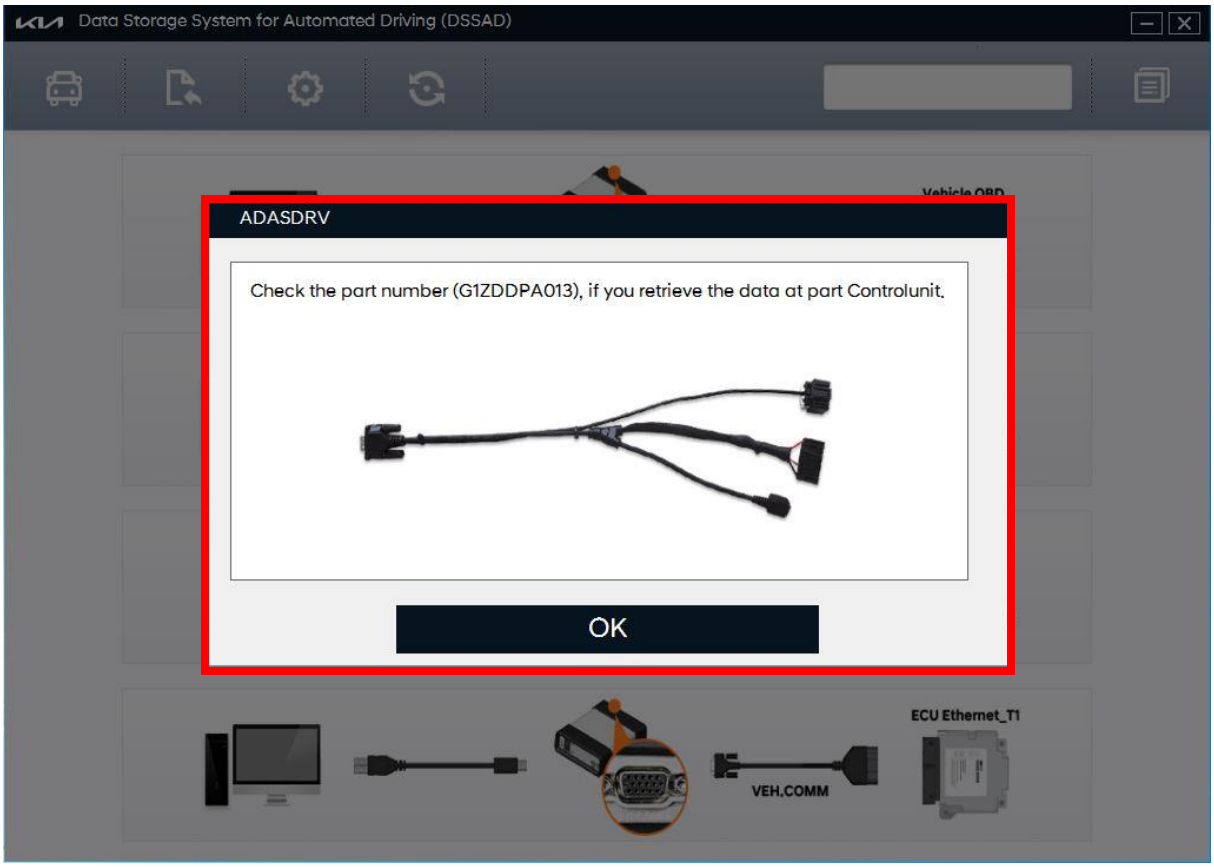


[Figure 4] Entering additional information

Checking connector part number

After selecting the vehicle model and entering additional information, you should check the connector part number as shown in [Fig. 5] and connect it to the ACU unit and the ADL connector.

- When directly communicating with the vehicle, no connector connection is required, so you can ignore the part number.

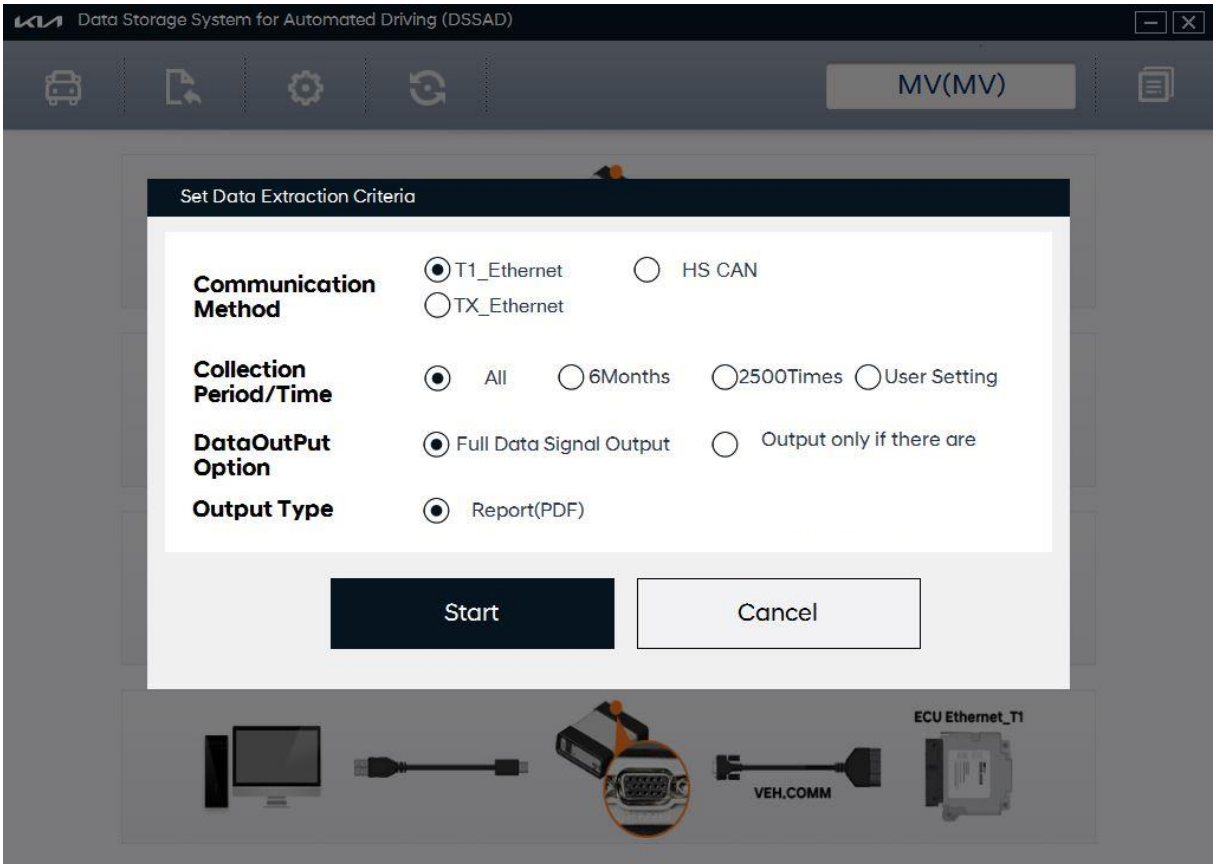


[Figure 5] Checking the connector part number

Setting data extraction conditions

When the ADL and connector connection is completed, a pop-up for setting data extraction conditions is created as shown in [Figure 6].

Users can extract data by designating communication method, collection period/number of times, data output option, and output type.



[Figure 6] Data extraction condition settings

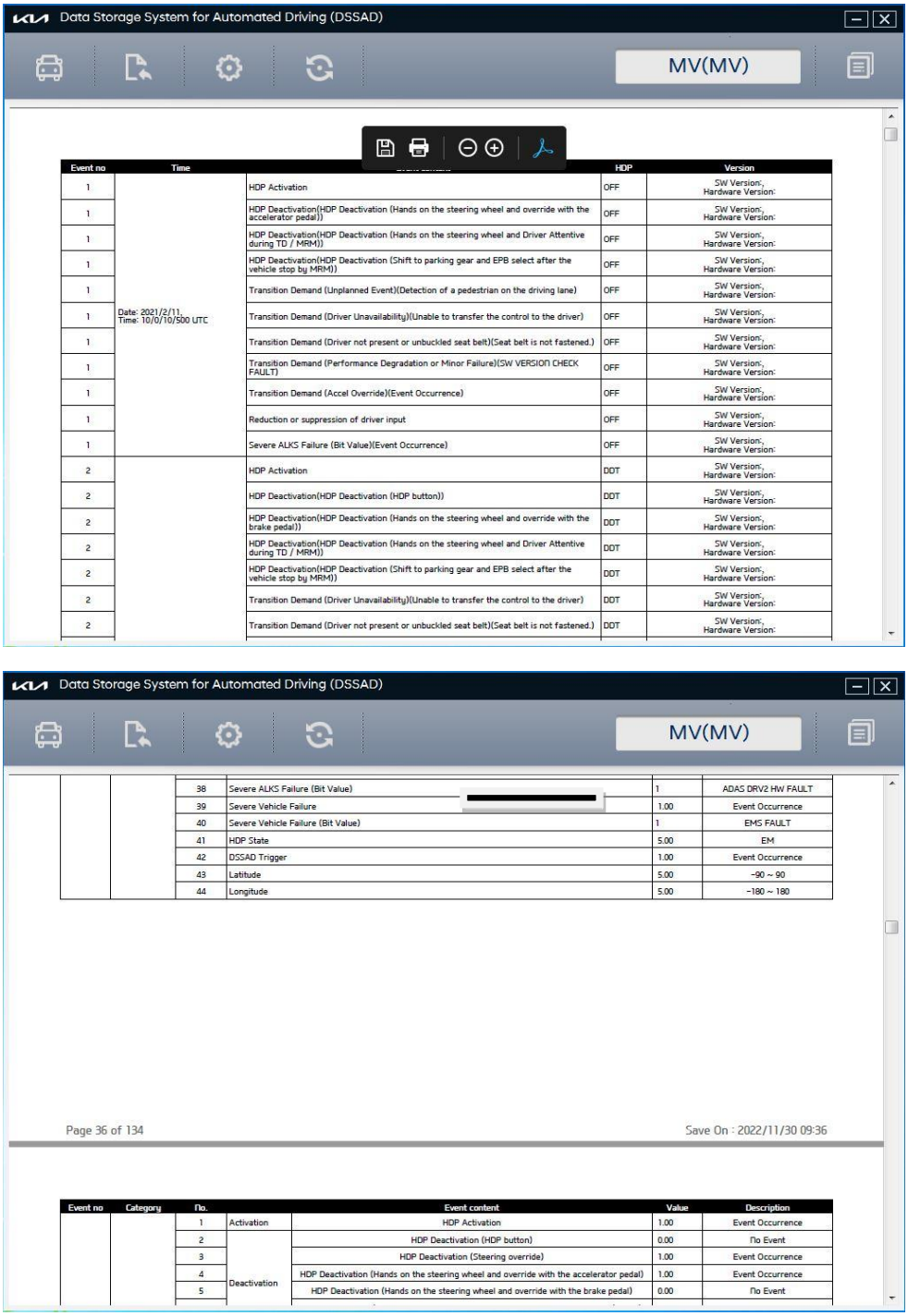
Data communication

After setting the data extraction conditions and pressing the “Start” button, a search progress pop-up window appears and the search proceeds. The data communication operation takes approximately 3 to 5 minutes.

[Figure 6-1] Data communication

Communication completed

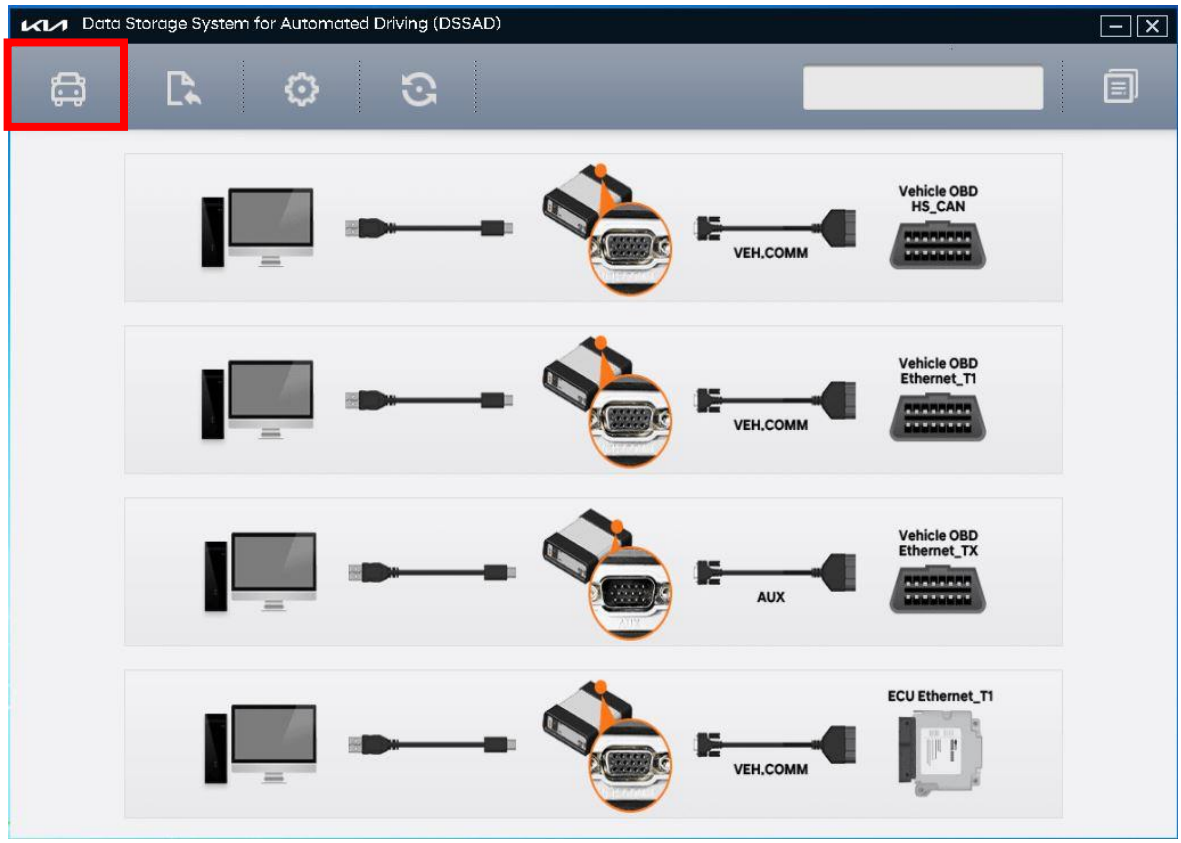
If communication is complete, the search outcomes are displayed in PDF file format as shown in [Figure 7].



[Figure 7] Search completed

Initial screen

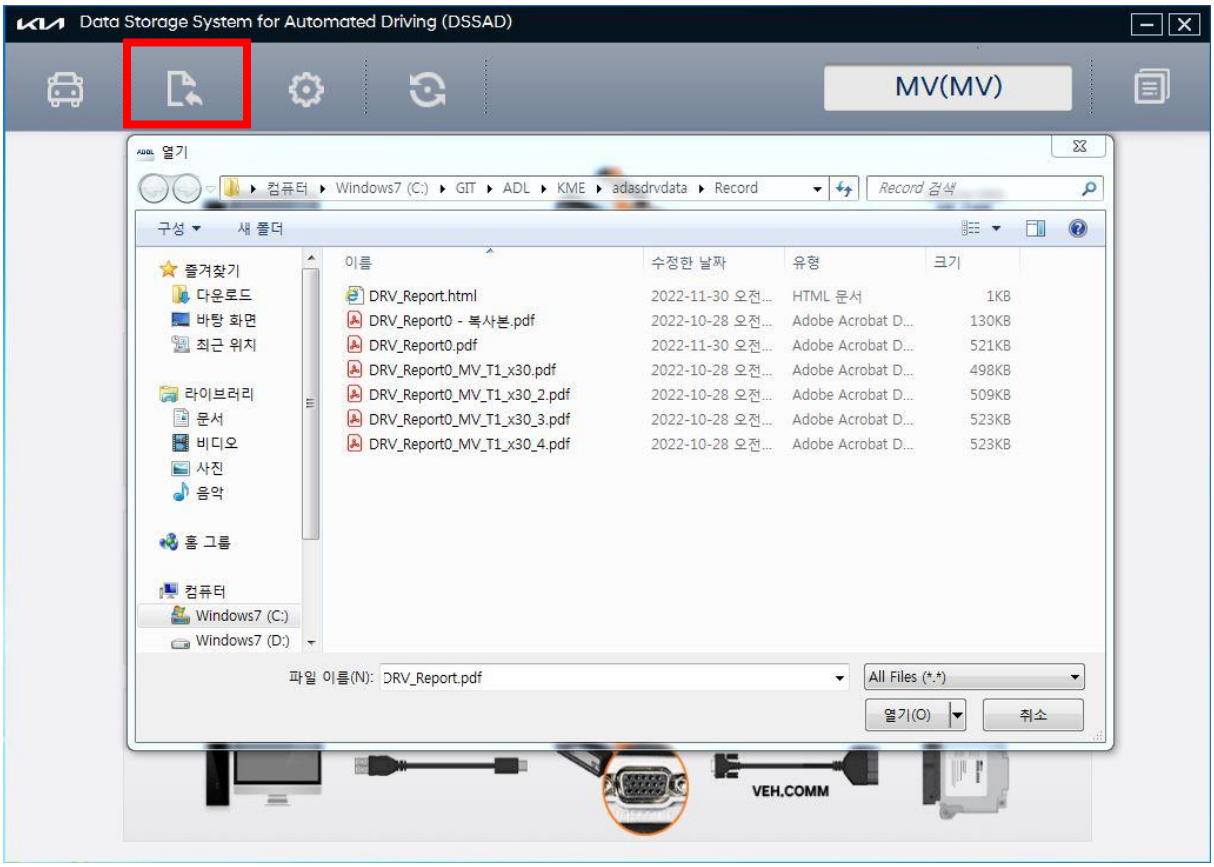
As shown in [Figure 8], it is a function to view the initial screen, when clicking the initial screen button.



[Figure 8] Initial screen

Open PDF file.

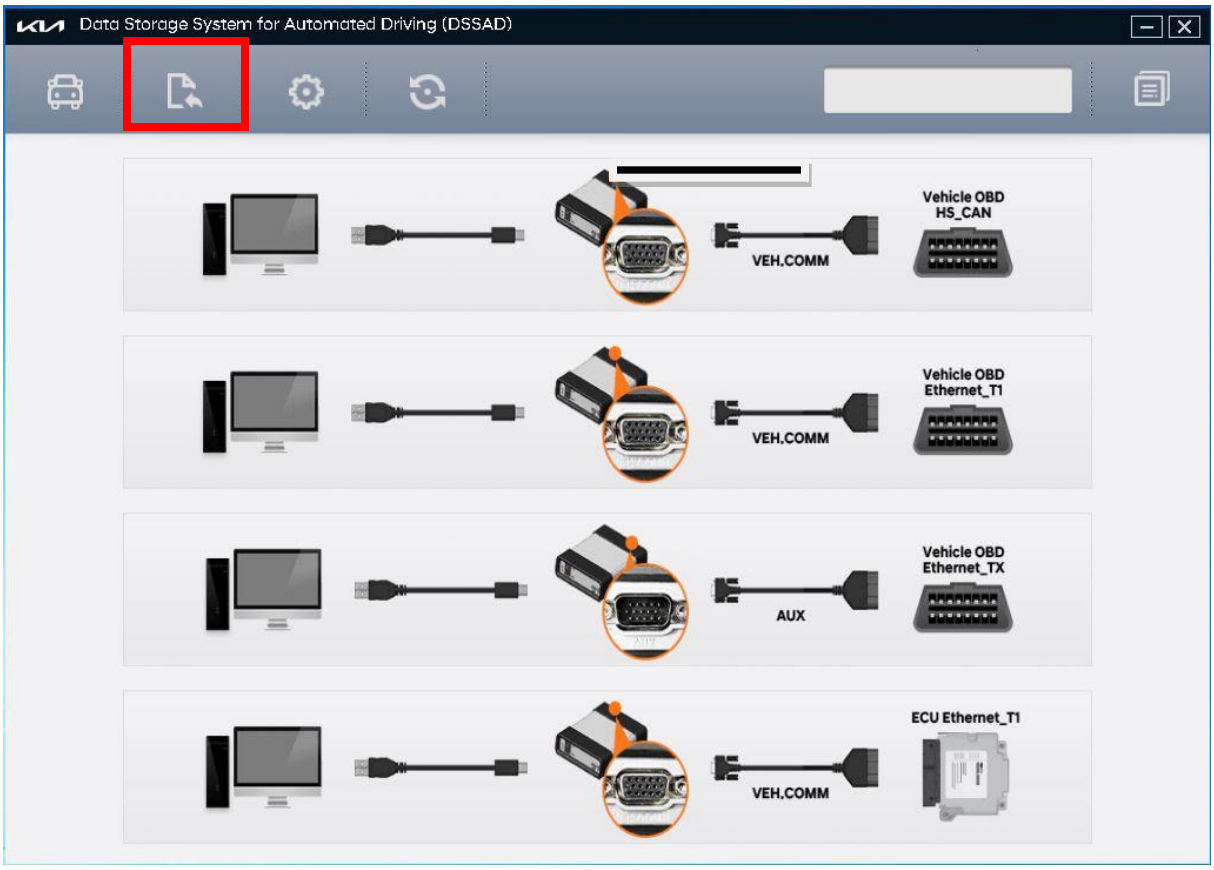
When the search is completed, you can open the saved PDF file by clicking the Open PDF button as shown in [Figure 9].



[Figure 9] Open PDF file

Open save file.

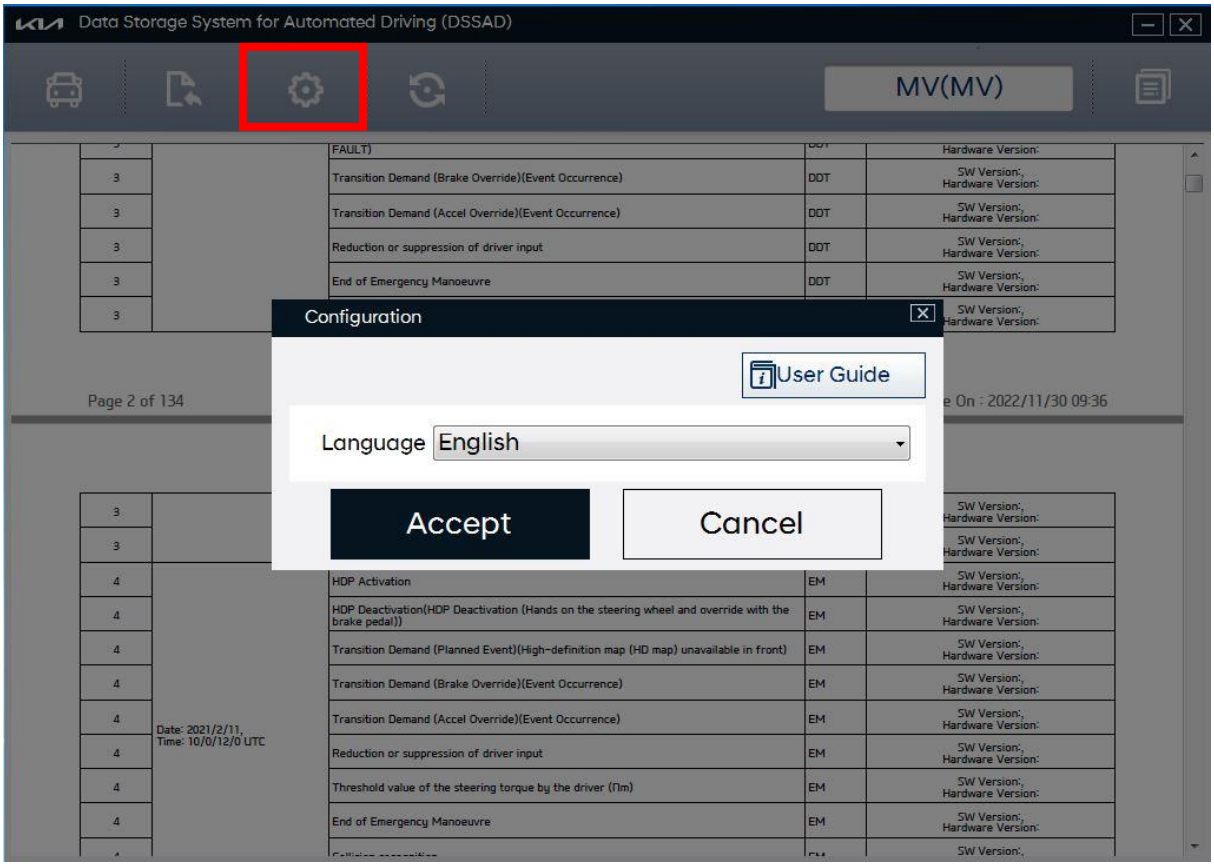
As shown in [Fig. 10], the file saved as a PDF file can be viewed when clicking the Open button.



[Figure 10] Open the saved file.

Settings

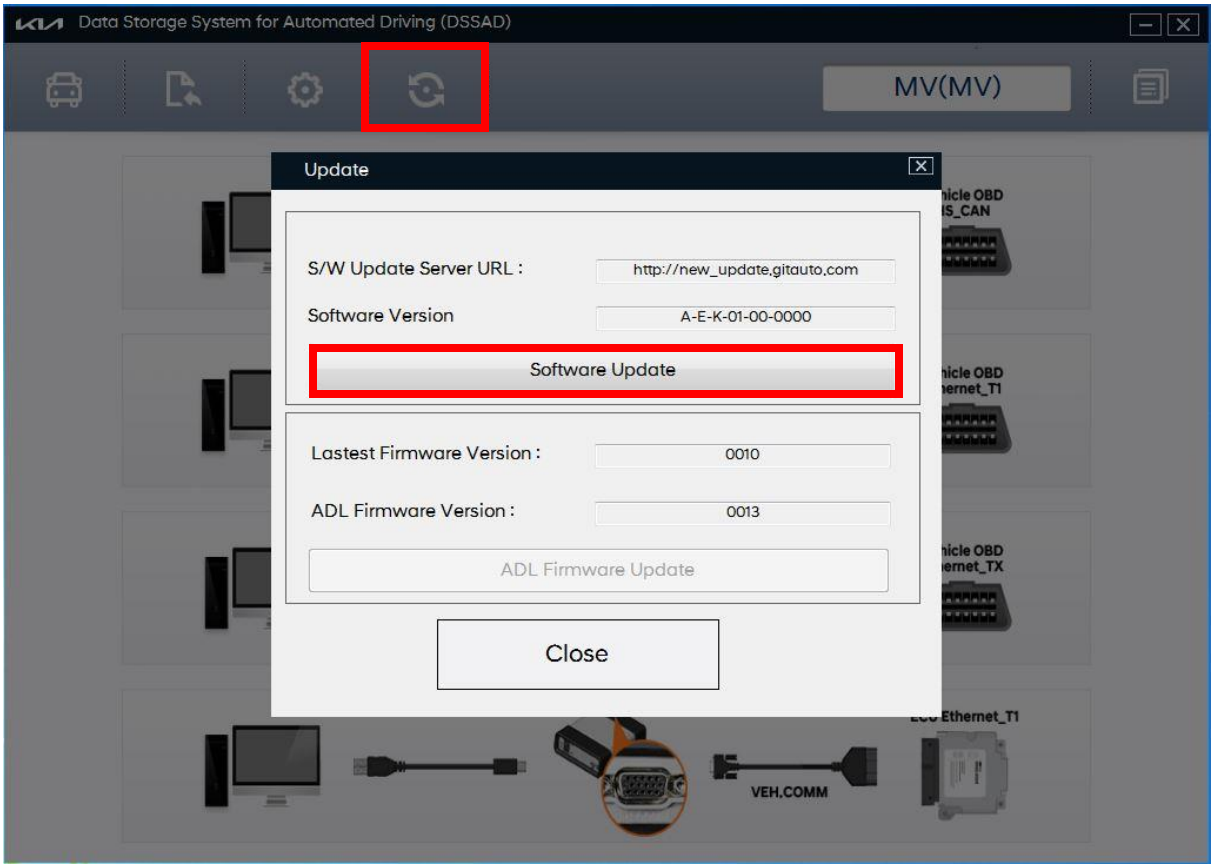
Changing the user guide manual and language is a function that can be viewed when clicking the setting button as shown in [Figure 13].



[Figure 13] Settings

Internet update

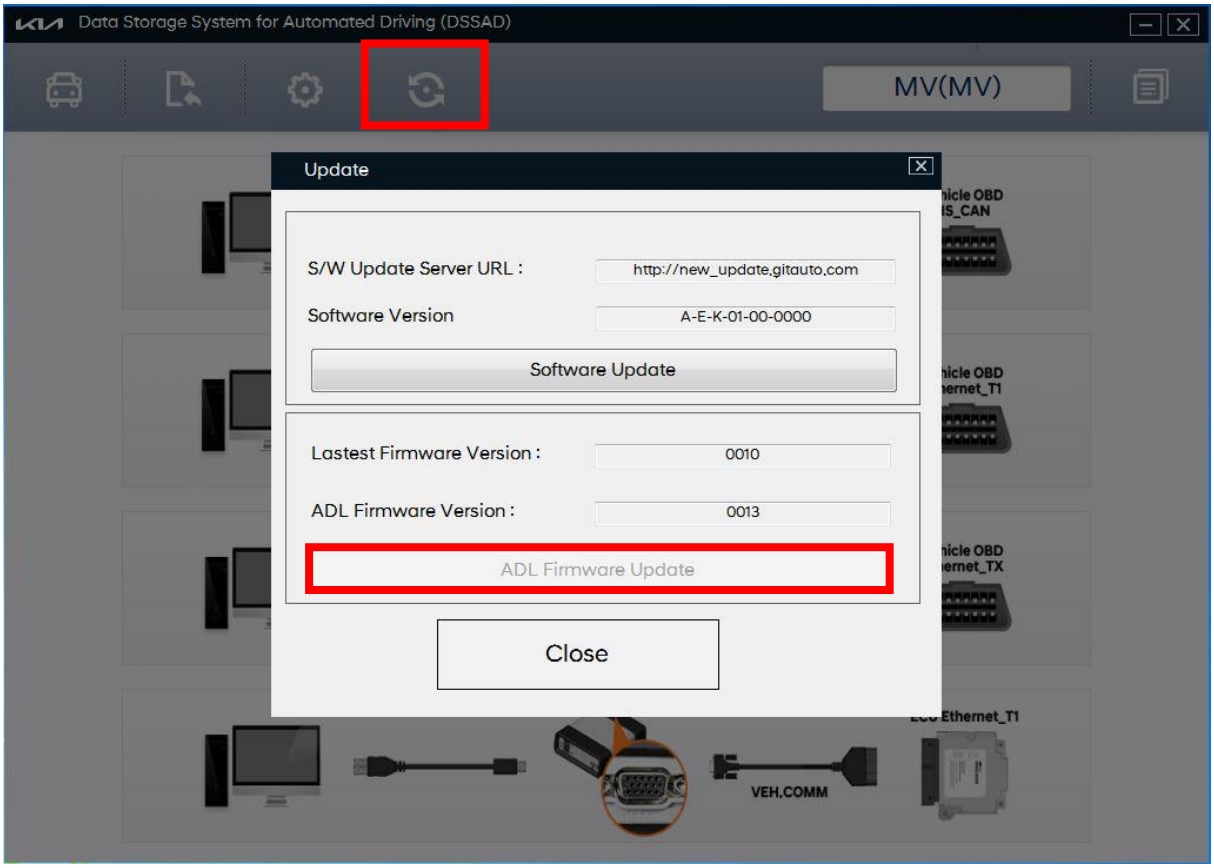
The Internet update function is a function that can be updated when clicking the software update button as shown in [Figure 14].



[Figure 14] Internet update

ADL Firmware Update

Firmware update function is a function which can be updated, when clicking the “ADL Firmware Update” button as shown in [Figure 15].



[Figure 15] Firmware update

ADL

Unit 5 Appendix

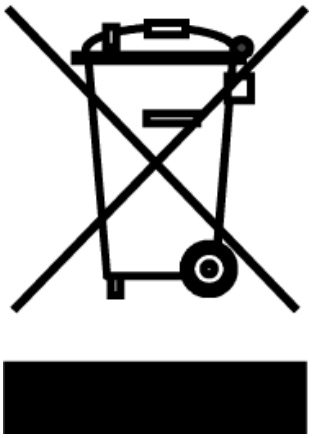
Disposal of Outdated Waste Electrical and Electronic Equipment

ADL Disposal of outdated electrical and electronic equipment

ADL-Appendix (Unit: Appendix – Disposal methods

The Waste Electrical and Electronic Equipment (WEEE) symbol shown in Figure 1 is located behind the ADL body.

Follow the regulatory guidelines for disposal of waste electrical and electronic equipment.



[Figure 1] WEEE symbol

If this symbol is displayed on outdated electrical and electronic equipment disposal products or packaging, do not treat these products as household waste. Instead, it must be forwarded to the appropriate collection point for recycling of electrical and electronic equipment. You should ensure that this product is disposed of properly to avoid potential adverse environmental and health effects. Otherwise, this product may be improperly disposed. Product recycling helps conserve natural resources. For more information regarding recycling this product, please contact affiliated local city hall, household waste disposal services, or the store where you purchased the product.