

NAV-TV

INTERFACING THE FUTURE

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MDAS-9 Installation Guidebook



MOVON

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No	Version	Date	Contents	Written	Note
1	2.1.5	17.08.05	Initial Release	John	
2	2.1.6	17.08.08	Modified a picture (Power Cable, Smart phone Calibration, PC Calibration)	John	
3	2.1.7	17.08.09	Added FMS cable	John	
4	2.1.8	17.08.10	Added Recording Hours	John	
5	2.1.9	17.08.17	Modified product components	John	
6	2.2.0	17.09.14	Modified product accessory	Hugh	
7	2.2.3	17.11.08	Modified description of CAN Reader	John	
8	2.2.4	17.11.21	Modified 3Pin Power cable	John	
9	2.2.5	17.11.29	Added product accessory (FMS Converter)	John	
10	2.2.6	17.11.30	Modified description of CAN Reader	John	
11	2.2.7	17.12.01	Modified description of SD card	John	
12	2.2.8	18.01.16	Modified System Connection Scheme	John	
13	2.2.9	18.03.20	Modified Driver setup and vibration picture	Hugh	
14	2.2.10	18.04.25	General update	Julia	
15	2.2.11	18.09.21	Added analog wiring method comment	Hugh	
16	2.2.12	19.01.03	Remove App setting sections Improve the images and corrected expression	Dominic	

1 General

This MDAS installation requires custom wiring to various electronic signals in the vehicle. Please contact your local authorized installer to install. **NAV-TV and Movon** will hold no liability of any damage occurred during installation proceeded by users or unauthorized installers.

MDAS is developed to give only warnings to drivers. The final decision to maneuver or control shall be made by drivers themselves. Furthermore, MDAS is not capable to provide 100% detection rate of lane markings, vehicles, and MDAS recognition performance can be fluctuated due to road conditions, inclement weather, poor installation, etc. Please ensure that keep eyes forward while driving rather than only relying on MDAS.

2 Product

2.1 Specification

CPU	Cortex A7 Quad-Core	
Audio Out	Speaker	
Camera	Front	1280 x 720 (HD)
	Rear	1280 x 720 (HD)
Power	Input Range	DC 10V ~ 36V
	Power Consumption	400mA @ 12V Max 3mA @ 12V Idle State
Format	Video	MP4 (h.264 codec)
	Audio	PCM
Storage	4~128GB Micro SD card support	
Input / Output	Main	Micro 5pin USB port, Micro SD Card, GPS port
	PCI Box	Main Cable, Vibrator, Analog, Indicator, FMS, Video OUT, CAN, POWER, Fuse
Size	Body	80 x 120 x 50 mm
Temperature	Operation	-20°C ~ 70°C (-4°F ~ 158°F)
	Storage	-40°C ~ 85°C (-40°F ~ 185°F)

2.2 Product components

Main unit	Basic cables (Power/CAN/Analog)	PCI Box	Indicator
			
Micro SD card (Consumable)			
			

Rear Camera (Optional)	Contactless CAN Reader (Optional)	Video Out Cable (Optional)	GPS (Optional)
			
Vibrator (Optional)	Micro 5PIN USB cable (Optional for installers)	Wi-Fi Dongle (Optional for installers)	External Fuse (Optional)
			
Technical cleaning wipe	FMS Cable(RS-232) (Optional)	FMS Cable with D- Sub(RS-232) (Optional)	FMS Converter (RS-232 to CAN) (Optional)
			

2.3 Main Unit & Main Cable

2.3.1 Main Unit

2.3.1.1 Parts description



2.3.1.2 Mounting Frame and Back Cover



2.3.1.3 LED Description

LED Status				
				
Illuminate	Blink	Illuminate	Blink	Blink
Booting	Turn signal (L, R) Before booting	Working mode	Initialization Calibration Mode	Firmware Update

2.3.2 Main Cable



2.4 Contactless CAN Reader



2.5 Indicator

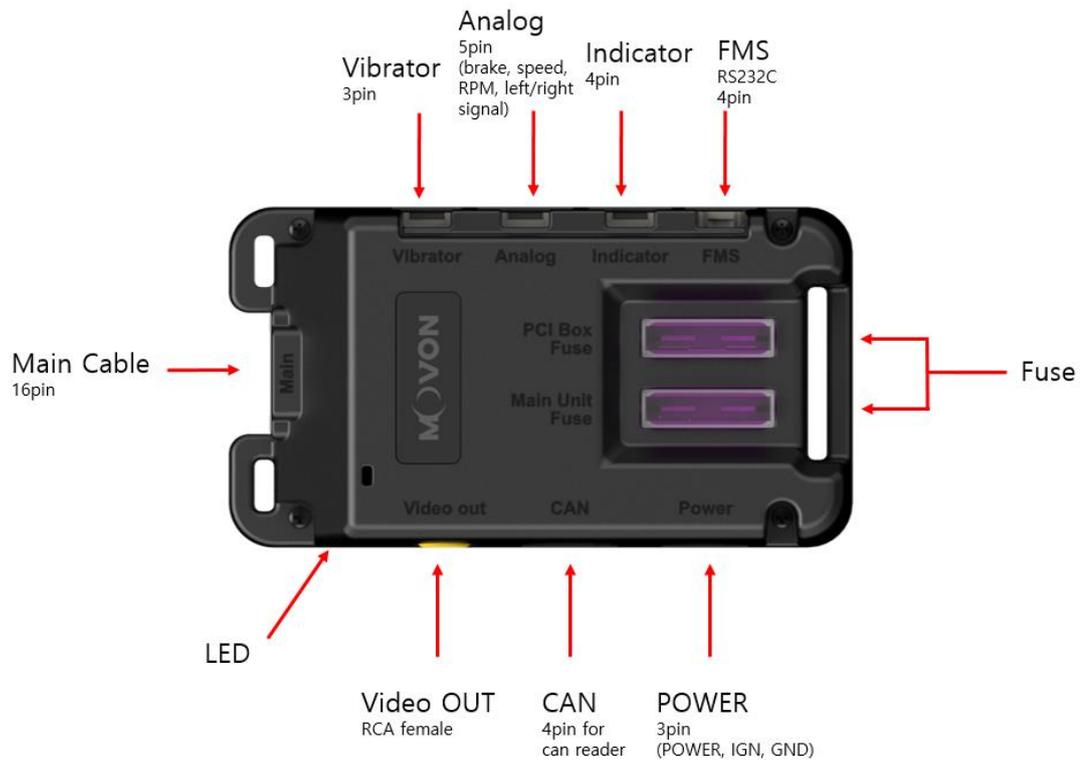
Read user manual to see more description and functions.



Indicator Error Table				
Camera Connection Error	CAN Communication Error	Camera View Block Error	Indicator Communication Error	Low Visibility Indication

2.6 Peripheral Component Interconnect Box (PCI Box)

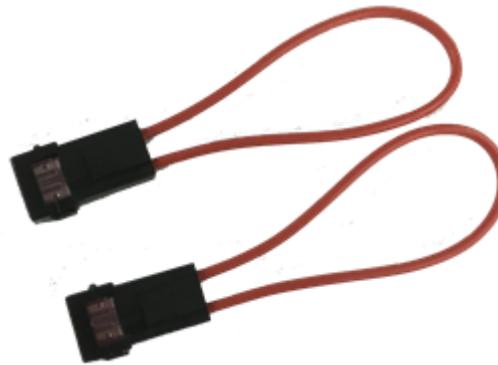
Peripheral Component Interconnect Box (PCI Box) is to connect the cables and accessories.



PCI BOX LED status table	
Color	status
Yellow	In case of wiring only constant power
Green	In case of wiring constant power and ACC power

2.7 External Fuse (Optional)

MDAS-9 provides with an External Fuse to prevent from short circuiting the vehicle electrical system.



2.8 Technical Cleaning Wipe (Optional)

MDAS-9 provides Technical Cleaning Wipe for cleaning and removing dust, finger print on windshield.



2.9 Vibration unit (Optional)

* NOTE: Need Vibrator gender cable to use this and need to enable in Calibration.
Read details in Chapter 4. Calibration



The image shows a black vibration unit with a small rectangular control box and a curved black cable with a connector at the end.

Fleet management setup

1. Speed limit warning	Off ▾
2. Transmit data RS-232	Off ▾
3. Lock volume button control	Off ▾
4. Break time alarm	Off ▾
5. Vibration device	
5-1. Lane departure warning	Off ▾
5-2. Forward collision warning	Off ▾
5-3. Pedestrian collision warning	Off ▾

2.10 GPS (Optional)

* Important, in case of use GPS for speed signal, warning timing can be inaccurate in decelerating circumstances.



2.11 Video Out Cable (Optional)

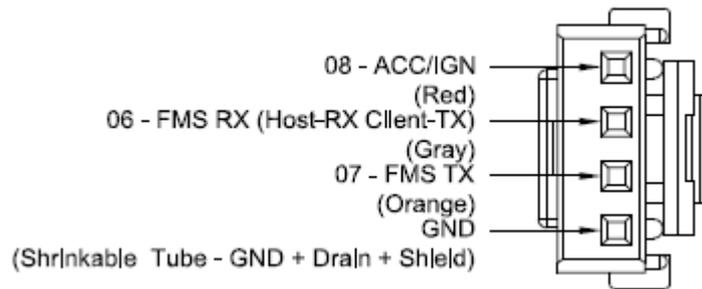
Transmit analog video to another device using RCA connector.



2.12 FMS Cable (Optional)

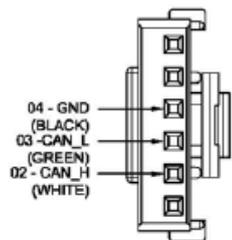
Transmit ADAS event data to Fleet Management System through RS-232 and CAN interfaces.

*** Caution: For FMS device connection, please connect RX, TX, and GND only. You can cut off the ACC/IGN.**

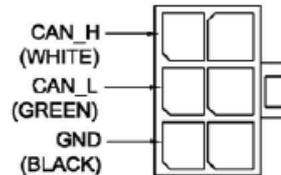


2.13 FMS Converter (Optional)

Convert ADAS event data received from RS-232 to CAN-Bus data to transmit.



(MOLEX) 35507-0400
TERMINAL:50212-8000



(MOLEX) 43025-0600
TERMINAL:430300004

2.14 Micro SD Card (Consumable)

* Micro SD card is consumable, only first 3 months will be guaranteed. It is recommended to format micro SD card regularly and replace it when it cannot be recognized in MDAS.

** Micro SD card speed shall be above **Class 10** and it is recommended to use **MLC type.**



Total Recording Hours (approximately)		
Memory Storage	Normal + Event + User	
	1CH	2CH
8GB	About 1 hour and 45 minutes	About 45 minutes
16GB	About 3 hours and 40 minutes	About 1 hour and 45 minutes
32GB	About 7 hours and 30 minutes	About 3 hours and 40 minutes
64GB	About 15 hours and 20 minutes	About 7 hours and 30 minutes

* Caution

Depending on your environment, actual recording duration and SD card lifespan may vary. For stable performance, it is recommended that you format the memory card every 2-3 weeks. Formatting will delete all data in the card. If you want to keep them, please back up in advance. If MDAS fails to format the card more than twice, please try format using PC. It happens to some SD cards.

When you extract the card, please make sure MDAS is off.

2.15 Wi-Fi Dongle (Optional for calibration)

Use for Calibration procedures for Android OS Phones.

Application can be downloaded in Google Play Store.



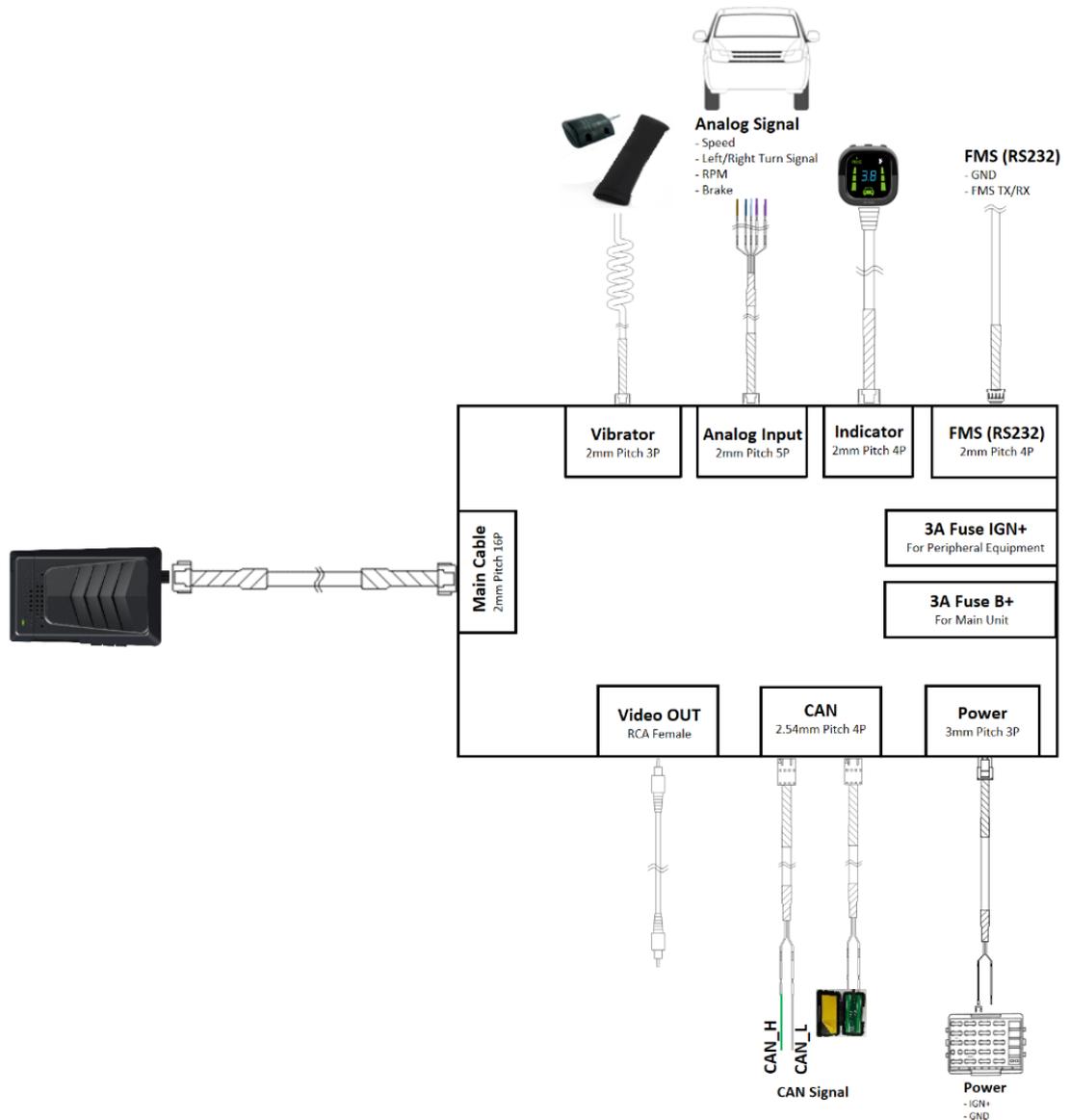
2.16 Micro 5 pin USB Cable (Optional for Calibration)

* NOTE: You can use a common USB cable that supports data transmission.
Use for Calibration procedures for **Windows OS** computers.
Before use, please install RNDIS driver, first. (See Chapter 4.1)



3 Installation

3.1 System Connection Scheme



3.2 Installation Procedure

- ① Check which types of signals the vehicle provides (CAN/Analog)
- ② Connect vehicle signals (See Chapter 3.3 Wiring Combination)
- ③ Attach MDAS-9 (and indicator if needed) to the vehicle
- ④ Connect cables with MDAS-9
- ⑤ Access MDAS-9 using Micro 5pin USB cable or Wi-Fi dongle
- ⑥ Calibration (See Chapter 4. Calibration procedure)
- ⑦ Test drive

3.3 Wiring Combination and Description

3.3.1 Main Cable

* NOTE: Label color could be different due to production, please check label tags before wiring.



3.3.2 5Pin Analog Cable



*****IMPORTANT *****

Please do not leave any analog wires unattached. If there are **any unused wires**, please connect them to ground.

Color	Label	Connection Description
Blue	SIG_R	To analog right turn signal
Light Blue / White Stripe	SIG_L	To analog left turn signal
Brown / White Stripe	SPEED	To analog speed signal, be careful with old vehicles that do not have speed sensor
Violet	RPM	To analog RPM signal
Black / White Stripe	BRAKE	To analog BRAKE signal

3.3.3 4Pin CAN Cable



Color	Label	Connection Description	
White	CAN_H	To CAN High wire	Support CAN J1939 standard & CAN 2.0 (Support Version A, B)
Green	CAN_L	To CAN Low wire	

3.3.4 3Pin Power Cable



Color	Label	Connection Description	
Red	IGN	To ignition (ACC) power wire that turns off when key is at OFF	
Black	GND	To ground source * Please ensure that is connected properly to ground, or it could damage the vehicle and MDAS.	

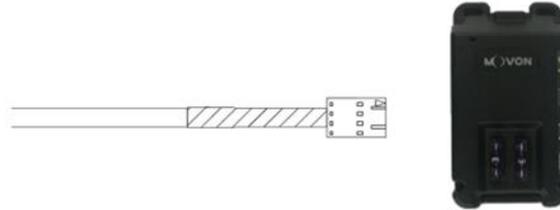
* There are different ignition powers, it is recommended to use an ignition power (ACC, IG1) that does not drop power shortly when the engine turns on.

3.3.5 Contactless CAN Reader



3.3.5.1 Wiring with Contactless CAN Reader

- ① Connect Contactless CAN Reader to PCI box of MDAS-9.



- ② Remove double-sided tape



- ③ Attach the vehicle's CAN wire as straight as possible to the double-sided tape by aligning with the hole marked in red.



* Like this picture, place CAN_L to the left and CAN_H to the right!

- ④ After case assembly, if installing CAN_H and CAN__L correctly, the red LED lights operates on the lower left side of the case as shown in the picture when the vehicle is "Key on".



* After checking on operating of LED lights correctly, tie with a cable tie marked in yellow.

*If CAN_H and CAN_L wires are attached correctly, LED lights illuminate bright. (If CAN_H and CAN_L wires are connected backwards, LED lights will be dim)

3.3.6 Wiring Combination

* NOTE: See cable description table below.

* NOTE: You can see Vehicle Database to check CAN-BUS availability.

Visit <http://info.mdas.co.kr> and check information before installation.

* NOTE: If you don't use whole analog cable, you should wire the remaining cable of 5Pin analog with ground.

No.	Speed	Turn signal	Recommended connection
1	CAN-BUS	CAN-BUS	4PIN CAN Cable or Contactless CAN Reader Use 4PIN CAN Cable or Contactless CAN Reader for speed and turn signals.
2	CAN-BUS	Analog	4PIN CAN Cable or Contactless CAN Reader + 5PIN Analog Cable Use 4PIN for speed, and 5PIN for analog turn signals.
3	Analog	Analog	5PIN Analog Cable Use 5Pin for analog speed signal and turn signals.
4	GPS	Analog	5PIN Analog Cable + GPS

3.4 Attach MDAS-9

- ① Before attaching MDAS-9, clean and remove dust, finger prints on the desired installation area with technical cleaning wipe and mark the center of windshield.

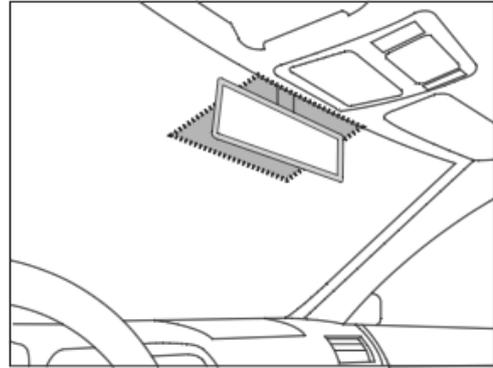
*NOTE: It is very important to attach MDAS-9 at the center for the best performance.

If MDAS-9 cannot be attached at the center, due to interior or space, attach MDAS-9 as close as possible to the center. You can adjust the difference during Calibration in Chapter 4.

MDAS-9 Should not be attached more than 10cm (4inches) apart from the center.



For trucks/buses



For passenger cars

MDAS-9 can change the cable layout as below for trucks/buses. Please refer to below procedure in Chapter 3.6 to change cable layout.



For trucks/buses



For passenger cars

- ② Attach MDAS-9 to windshield.



- ③ Insert a small screw driver into small holes marked in red in the Main Unit Back Cover and press the bracket to separate.



- ④ Unscrew two cross recessed screws marked in red to remove the Upper Back Cover.



- ⑤ Adjust the camera angle knob.
(Refer to Chapter 4.2.6 to adjust the camera angle completely)



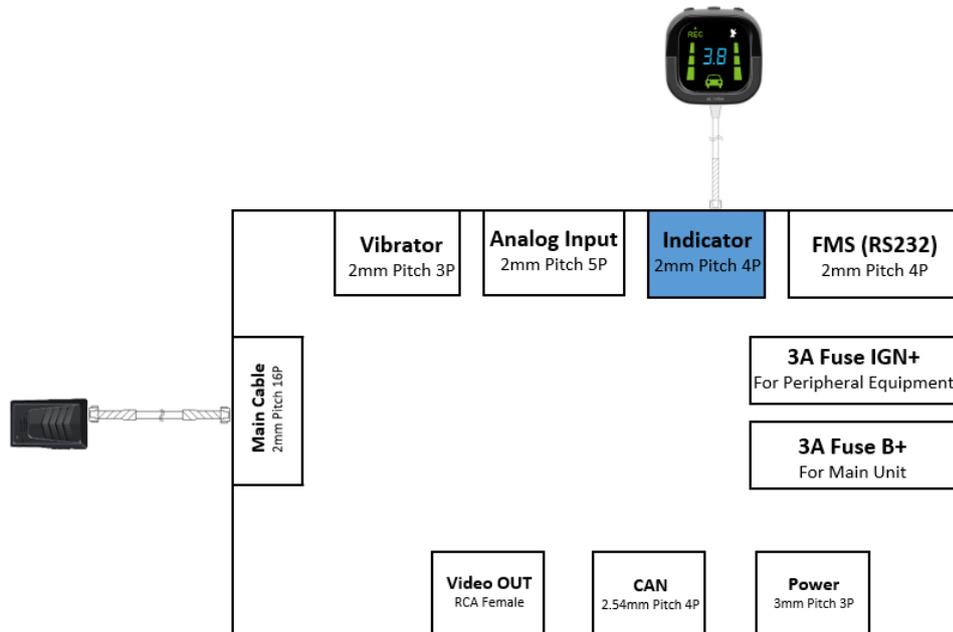
*NOTE: Do not reassemble the Back Cover before completing Calibration procedure.

*NOTE: In case of installing rear camera, refer to Chapter 3.6

3.5 Parts connection

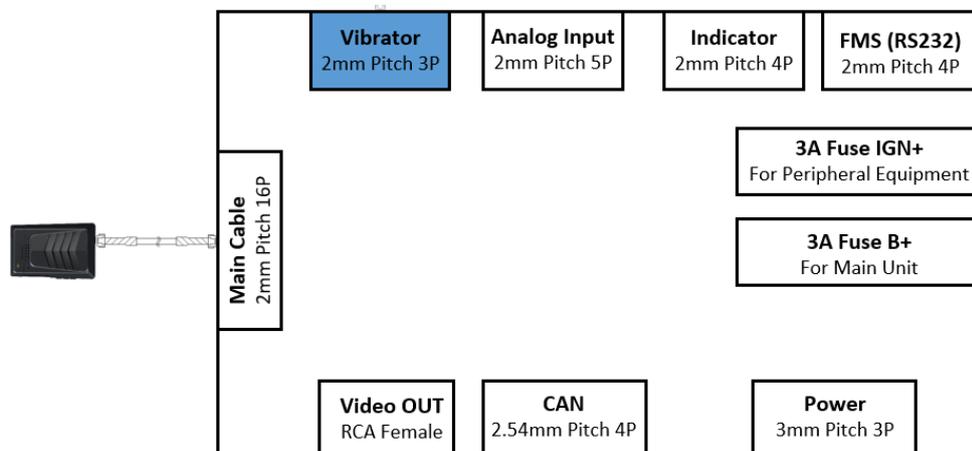
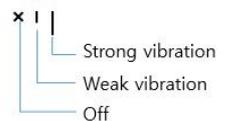
3.5.1 Indicator

Connect Indicator using 4pin connector to Indicator port on PCI box.



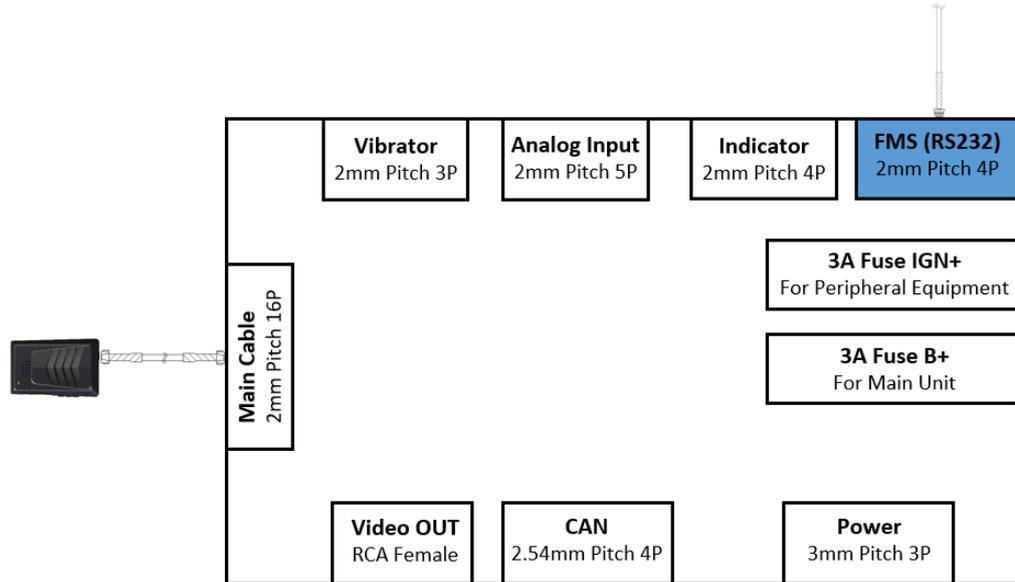
3.5.2 Vibration module

Connect Vibrator using 3pin connector to Vibrator port on PCI box.



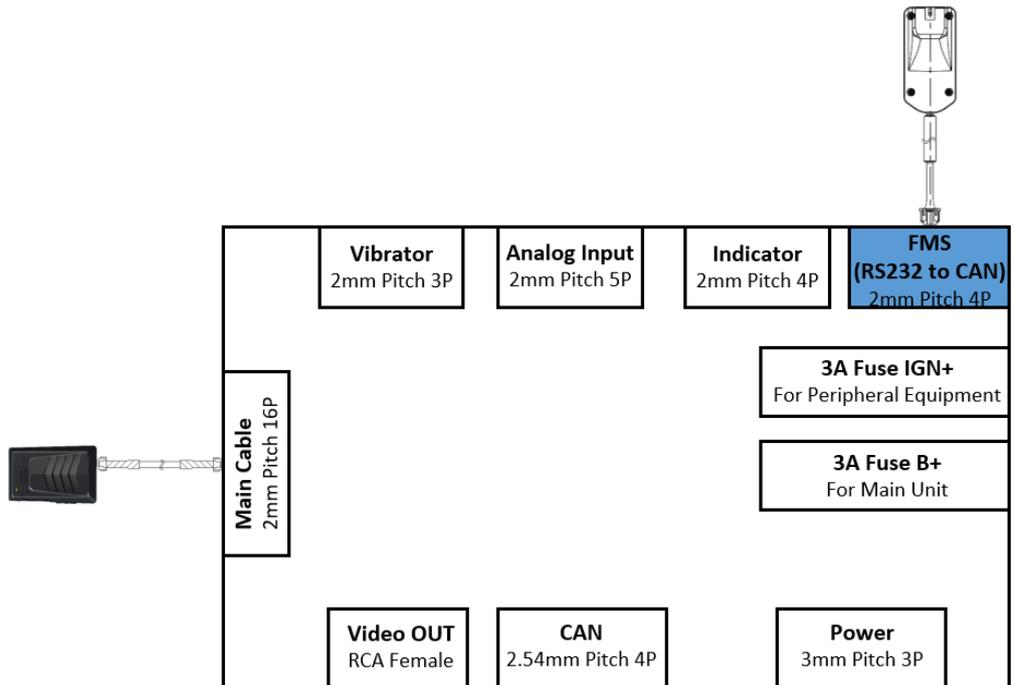
3.5.3 FMS Cable

Use FMS cable and plug into FMS port on PCI box.



3.5.4 FMS Converter

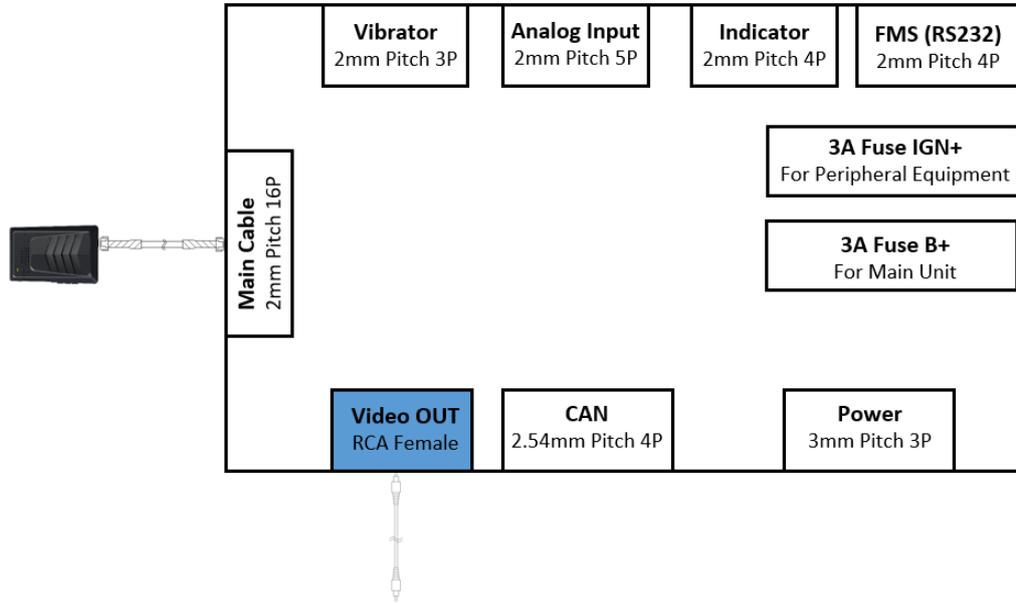
Use FMS Converter and plug into FMS port on PCI box.



3.5.5 Video-Out Cable

Use RCA cable and plug into Video OUT port on PCI box.

This function does not provide other UI or graphics through via video-out.



Screenshot

3.6 Connect Rear Camera to MDAS-9
Following Chapter 3.4 in Attach MDAS-9

① Unscrew two cross recessed bolt marked in red on top side.

② Push the two clips at the bottom side.



③ Remove PCB unit from mounting frame completely.



- ④ Connect Rear Camera Cable to connector.



3.7 Reset MDAS-9

If MDAS-9 has any malfunction, reboot the system or clear reset MDAS-9.

* **Caution: Once you clear reset MDAS-9, current settings such as CAN data or vehicle information will be removed**

- ① Reboot (External)

Press the Volume Down, Volume Up and Center Button at the same time.



② Reboot (Internal)

Press the lower small button in red box.



③ Clear Reset (Internal)

Press the upper small button in red box.



4 PC and Android Phone Calibration

4.1 Driver Setup (ONLY SUPPORTS WINDOWS OS)

* NOTE: Before you connect or start calibration, please install RNDIS driver first.

* For more details, see Chapter 6.

4.2 Calibration Setup

4.2.1 Access MDAS-9 Calibration page via PC

① Connect MDAS-9 to PC using Micro USB cable with 5 pins.

② Start the engine.

If you hear repeating beep sound, this means MDAS-9 is properly connected to computer.

③ Type 10.0.0.1 in an internet web browser to access MDAS-9 calibration page. Google Chrome is recommended.

④ If you see the page below, please select language you want and sign in using following information;

- ID: admin
- Password: 1234



4.2.2 Select Vehicle Signal Types

You have 3 wiring options for installation; CAN-BUS / Analog wiring / GPS.
Please select proper calibration option below.

4.2.2.1 Vehicle Data File (CAN-BUS)

For CAN-BUS connection, you have to choose “Vehicle info file” tab.
MDAS-9 only recognizes encrypted CAN data from our Database site;
<http://info.mdas.co.kr>
(For further information, check Chapter 5: How to Download CAN data)

* NOTE: MDAS-9 only reads a file named “mdasinfo.dat”.

If you have downloaded multiple files and they are named like
“mdasinfo(1).dat” or “mdasinfo(2).dat”, they cannot be recognized in
MDAS-9.

Upload vehicle data file

Vehicle info file	Analog (GPIO)	GPS (Speed)
<p>Choose File No file chosen</p> <p>Please click the right arrow button to proceed to next step</p>		

4.2.2.2 Analog (GPIO)

In case of using Analog signals, you don't need CAN file. Just click the
Analog (GPIO) tab. Enter speed correction factor value and RPM
correction value. Change polarity for turn signals and brake signal based
on the vehicle.

*****IMPORTANT *****

Please do not leave any analog wires unattached. If there are **any unused wires**,
please connect it to the ground.

Upload vehicle data file

Vehicle info file	Analog (GPIO)	GPS (Speed)
<p>Speed correction factor <input type="text" value="5000"/></p> <p>Left turn signal polarity <input type="text" value="High"/></p> <p>Right turn signal polarity <input type="text" value="High"/></p> <p>Brake signal polarity <input type="text" value="High"/></p> <p>RPM correction factor <input type="text" value="5000"/></p>		

4.2.2.3 GPS

In case of receiving speed and turn signal information from GPS, click GPS tab. Change polarity for turn signals and brake signal. Enter RPM correction value.

The screenshot shows a web interface titled "Upload vehicle data file". It has three tabs: "Vehicle info file", "Analog (GPIO)", and "GPS (Speed)". The "GPS (Speed)" tab is active. Below the tabs, there are four configuration items:

Left turn signal polarity	High ▾
Right turn signal polarity	High ▾
Brake signal polarity	High ▾
RPM correction factor	5000

4.2.3 Vehicle Signal Check

In this page, you can check whether MDAS-9 is receiving vehicle data properly.

4.2.3.1 Verify Speed Signal

Start the engine and drive slowly in a safe place to see whether MDAS speed is corresponding with the vehicle's speed. If it's working, you will see the vehicle speed on the page. If it's not, you can adjust it by speed correction.

Drive and maintain the speed around 40km/h (24mph). Click the "Correction" button on the right. Then, MDAS-9 will set new speed automatically.

The screenshot shows a web interface titled "Vehicle signal check". It displays five rows of status indicators and control buttons:

Speed :	Speed	CAN→Analog	Correction
Left :	◀	CAN→Analog	Correction
Right :	▶	CAN→Analog	Correction
Brake :	●	CAN→Analog	Correction
RPM :	RPM	CAN→Analog	Correction

4.2.3.2 Verify Turn Signal

Turn on the turn signals and see if the box with arrow is blinking in orange color in accordance with turn signals. If the box is already blinking in orange before you turn the signals on, please click the “Correction” and see if it’s working as written above.

4.2.4 Camera Location and Vehicle Measurement

Camera location and vehicle measurement can affect MDAS-9’s performance. It is very important put accurate data for the best performance.

Camera location setup



cm / inch image

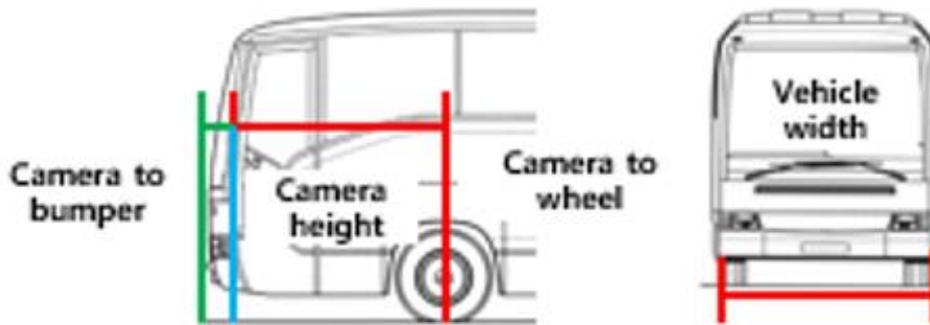
Camera height

Camera center

Camera to wheel

Vehicle width

Camera to bumper



Camera Height	Distance from ground to the center of camera lens.
Camera Center	Distance from the center of windshield to camera lens “-”: Left Side / “+”:Right Side (If MDAS-9 is attached 5cm to the right from the center, input 5. If MDAS-9 is attached 5cm to the left from the center, input -5.)
Camera to Wheel	Distance from the camera to the center of the wheel. <u>For trucks or buses, some vehicles’ wheels are located behind.</u> <u>In this case, please input 20cm.</u>
Vehicle Width	Distance between the wheels. Measure distance from left outside boarder to right outside boarder of the wheels.
Camera to bumper	Distance from the camera lens to the end of the bumper. <u>For trucks or buses, it is recommended to input 200~300 if need sensitive FCW warning.</u>

Camera Height



Camera Center

Camera location setup

cm / inch image

Camera height

Camera center

Camera to wheel

Vehicle width

Camera to bumper

TIP
Ex) 5 cm to the right = "5"
5 cm to the left = "-5"

Vehicle Width



Camera to bumper



4.2.5 Camera Angle

Adjust the camera angle knob to locate the horizon between the red guide lines.



In case of indoor installation or somewhere you cannot see the horizon properly, use same data to "**Camera Height**". Mark the same height on the wall apart about 3 ~ 5 meters from the vehicle.



4.2.5.1 Fine Camera Angle

For better accuracy of ADAS, locate the yellow dotted line in the horizon as close as possible.



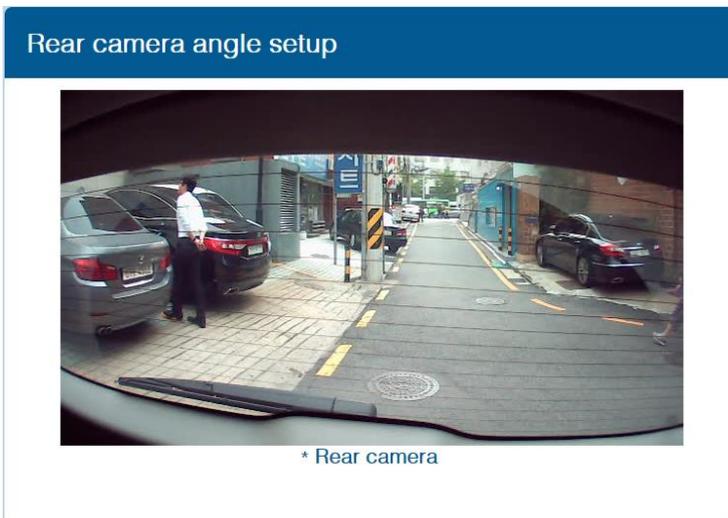
4.2.6 Hood Line

Locate the red line at the end of the vehicle's hood line to remove the useless area.



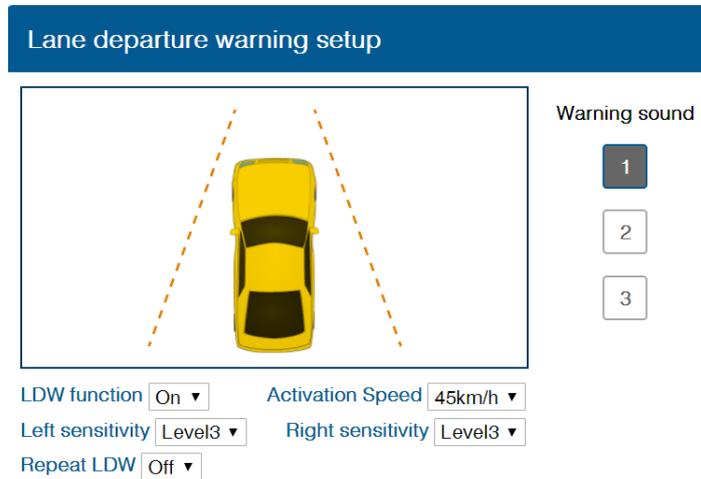
4.2.7 Rear Camera Setup

For better angle of Rear Camera (DVR), adjust the camera module by rotating it.



4.2.8 Lane Departure Warning (LDW) Sensitivity

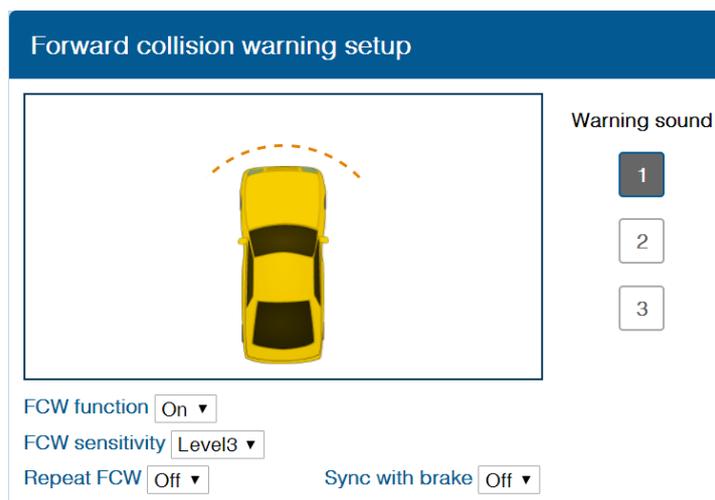
You can adjust the LDW Sensitivity for your convenience.



- ① Enable LDW function. (On / Off)
- ② Set the Activation Speed (15, 30, 45, 60, 75km/h)
- ③ Set the sensitivity of LDW warning on a scale of 1 to 5.
As the level gets higher, you will hear the warning sound earlier.
- ④ Enable Repeat LDW (On / Off)
- ⑤ Warning sound: Select preferred warning sound for LDW.

4.2.9 Forward Collision Warning (FCW) Sensitivity

You can adjust the FCW Sensitivity for your convenience.



- ① Enable FCW function. (On / Off)
- ② Set the sensitivity of FCW warning on a scale of 1 to 5.
As the level gets higher, you will hear the warning sound earlier.
- ③ Enable Repeat FCW (On / Off).

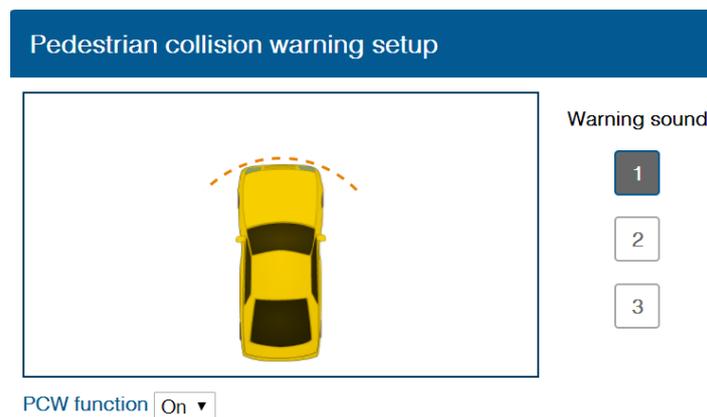
- ④ Enable Sync with Brake (On / Off).
If turning on this function, FCW alarm doesn't alert while depressing the brake pedal once.
- ⑤ Warning sound: Select preferred warning sound for FCW

4.2.10 Safety distance alert setup



- ① Enable SDA function. (On / Off)
- ② Set the sensitivity of SDA on a scale of 1 to 5.
As the level gets higher, you will hear the warning sound earlier.
- ③ Repeat SDA and SDA re-alert can be changed. (On / Off)

4.2.11 Pedestrian collision warning setup



- ① Enable PCW function. (On / Off)
- ② Warning sound: Select preferred warning sound for PCW.

4.2.12 Advanced ADAS setup

Advanced ADAS setup

- 1. Forward proximity warning
- 1-1 Warning range within
- 2. Front vehicle start alarm

- ① Enable Forward Proximity Warning function. (On / Off)
- ② Set the warning range on a scale of 1 to 3.
As the level gets higher, you will hear the warning sound earlier.
- ③ Enable Front vehicle start alarm. (On / Off)

4.2.13 DVR (Dashcam) setup

DVR(Dashcam) Setup

- 1. Time

 :
- 2. Voice recording
- 3. Gravity sensor sensitivity
- 4. Driving log with video
- 5. Recording ratio(Continuous:Event:User)

- ① Time: Set the date and time.
- ② Enable Voice recording function (On / Off).
- ③ Set Gravity sensory sensitivity on a scale of 1 to 5.
It is for event recording.
- ④ Enable Driving log with video. (On / Off).
- ⑤ Set the Recording ratio. (Continuous : Event : User)
You can choose between 5 ratios. (8:1:1 / 7:2:1 / 6:3:1 / 6:2:2)

4.2.14 Fleet management setup

Fleet management setup	
1. Speed limit warning	Off ▼
2. Transmit data RS-232	Off ▼
3. Lock volume button control	Off ▼
4. Break time alarm	Off ▼
5. Vibration device	
5-1. Lane departure warning	Off ▼
5-2. Forward collision warning	Off ▼
5-3. Pedestrian collision warning	Off ▼

- ① Set Speed limit warning. (Off, 80, 90, 100, 110, 120, 140km/h)
 - You can set your own speed limit for your fleet.
 - You can set speed limit of your vehicle and get warning if you over the speed limit.
- ② Enable Transmit data RS-232. (Off/ 9600/ 19200/ Converter)
- ③ Set Lock volume button control on a scale of 1 to 5 and Off.
- ④ Set Break time alarm on a scale of 1 to 6 hours and Off.
- ⑤ Enable Vibration setting for LDW, FCW, PCW (On / Off / Both).

4.2.15 Miscellaneous Settings.

Miscellaneous Settings	
1. Speed Unit	km/h ▼
2. Video out format	NTSC ▼
3. Voice guide language	English ▼
4. Indicator buzzer	Off ▼

- ① Set Speed Unit on Analog video output (km/h or MPH).
- ② Set Video out format (NTSC / PAL)
- ③ Set Voice guide language
(English / Korean / Chinese / Spanish / Japanese / Hebrew/ No Sound)
- ④ Enable Indicator buzzer (On / Off)

4.2.16 MDAS Setup Complete



Please press the button to complete calibration



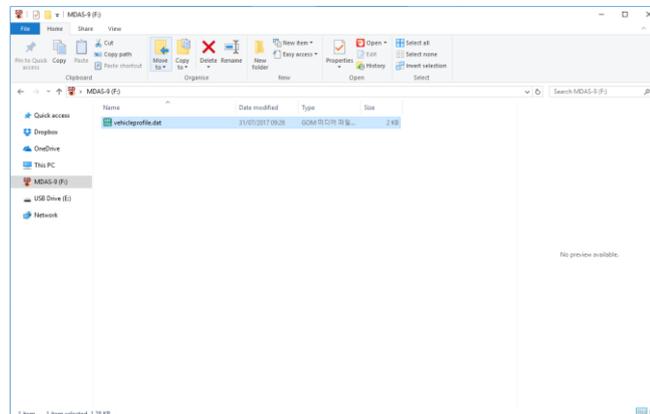
Press the button below to export and download the current vehicle profile



- ① Click “Complete” button to finish Calibration setup. Then MDAS-9 will be rebooted automatically.
- ② Click “Export vehicle profile” button, if you want to download vehicleprofile.dat.

* Procedure of applying vehicleprofile to MDAS-9.

- A. Copy and paste vehicleprofile.dat into the micro SD card formatted by MDAS-9.



- B. Insert the micro SD card into MDAS-9 which you want to apply the exported profile.
- C. MDAS-9 will be rebooted automatically. Then, the profile will be applied to MDAS-9.

4.3 Setting Modification

Once MDAS-9 is calibrated well, you will see different menu when you access MDAS-9.

4.3.1 Menu Description

Menu

System Update

Default the System

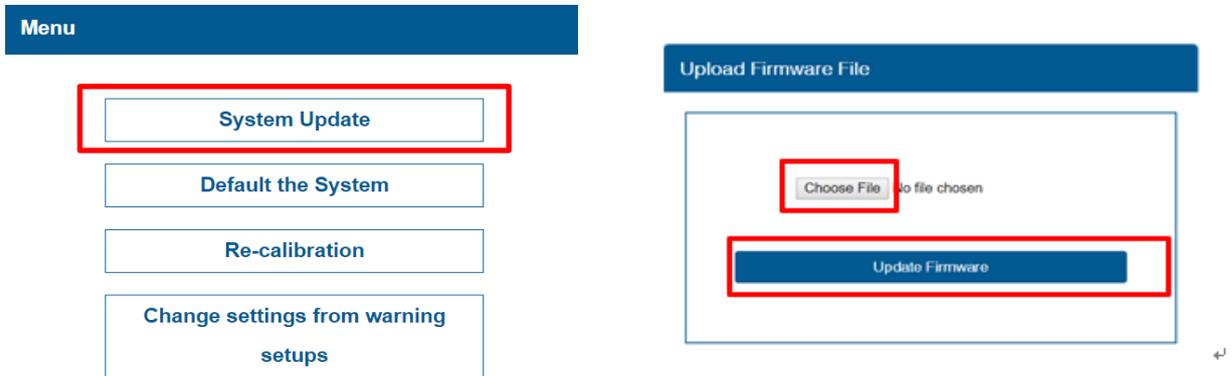
Re-calibration

Change settings from warning
setups

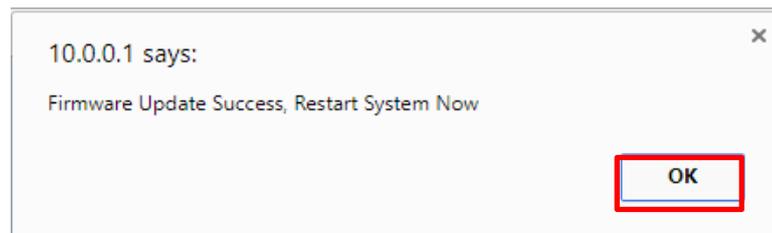
- System Update: You can update your firmware here.
- Default the System: You can reset and default current MDAS settings.
- Re-calibration: You can change current settings from the beginning.
- Change settings from warning setups: You can change current ADAS settings from “Lane Departure Warning”.

4.3.2 Update Firmware

- ① Select “System Update” menu to upload the latest firmware.
After uploading the file, click “Update Firmware” button below.



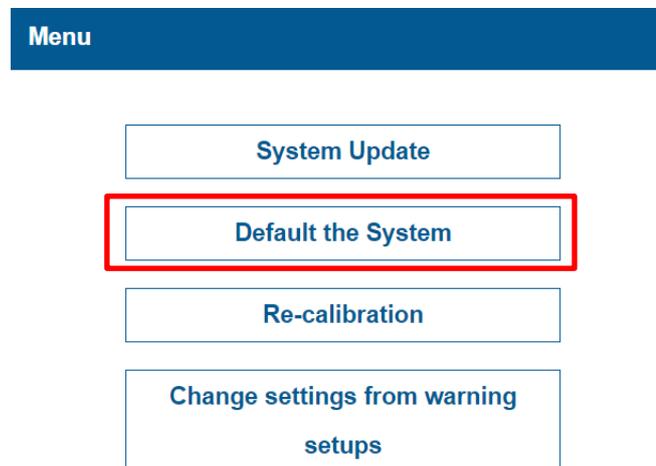
- ② You are done when you see a pop-up message below.



*NOTE: Do not touch or change anything while updating. Otherwise, MDAS-9 might lose its data and stop working.

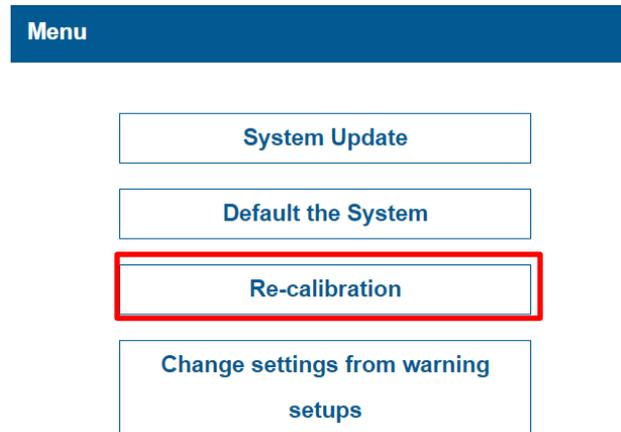
4.3.3 Default MDAS Settings

If you want to remove all data and return to a factory setting, click the “Default the System” menu and wait until you see a message below.



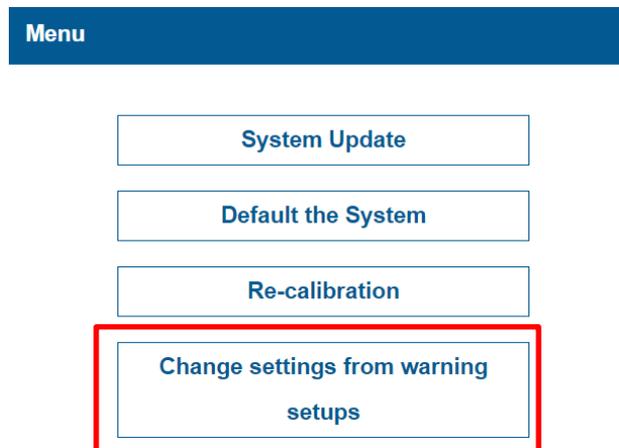
4.3.4 Re-calibration

If you click this menu, you will restart from 4.2.4.1 Vehicle Signal Check.



4.3.5 Change settings from warning setups

If you click this menu, you will restart from 4.2.9 Lane Departure Warning (LDW) Sensitivity. If you only want to change settings about ADAS warnings, please press this.



5 How to Download CAN Data

5.1 Register in Vehicle Database

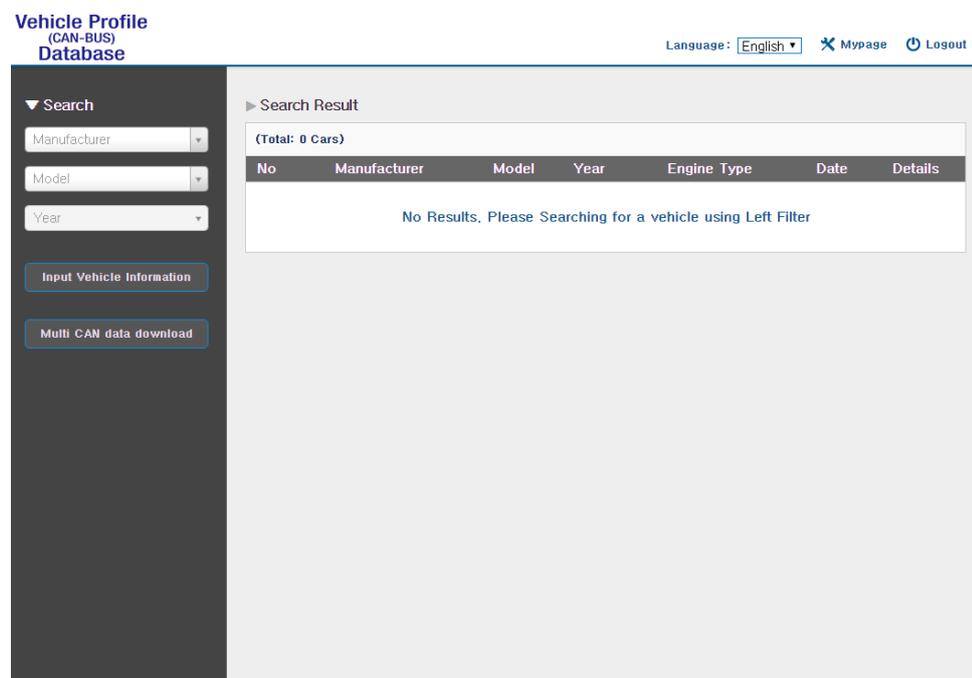
Open a web browser and enter <http://info.mdas.co.kr/>



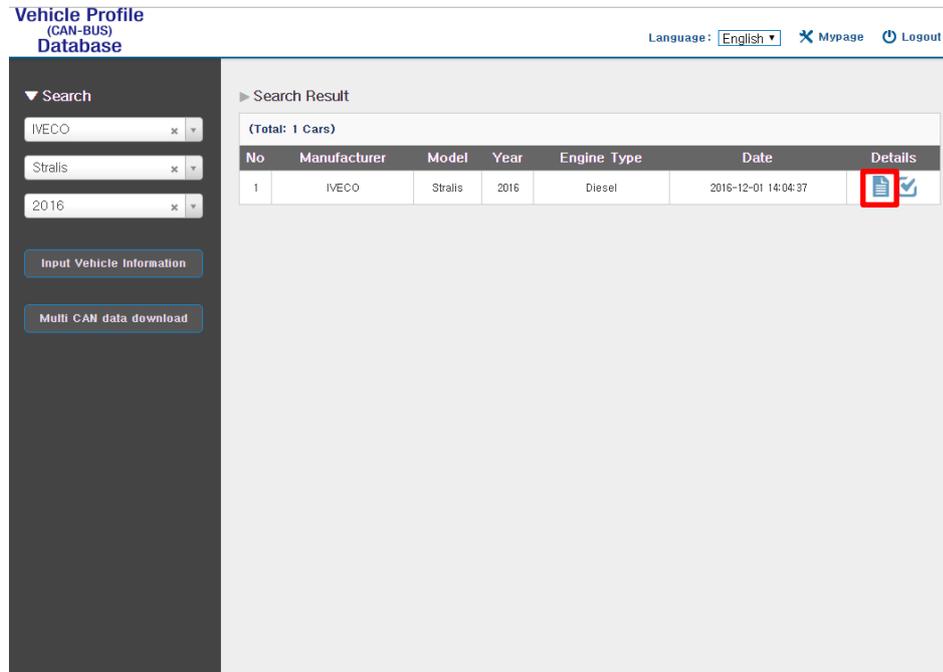
You need to register and get an approval to log in. Please contact Movon Corp. or your local distributor for the approval.

5.2 Download CAN Data file

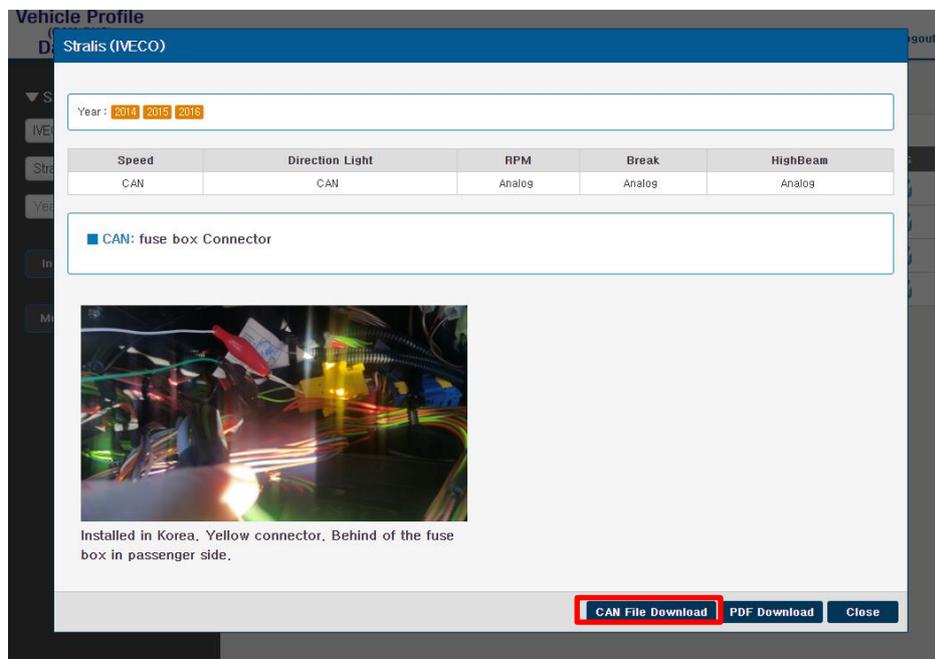
Once you log in, you will see Vehicle profile database page.



Select Manufacturer, Model name and manufactured Year for the vehicle you need. You will see results on the right side of the page.



If you find the right file for your vehicle, click “” icon to see and download the CAN data.



Click “CAN File Download” button, then you will get CAN data as “mdasinfo.dat”. If you want to download photos and signal data, click “PDF download” button. They will be downloaded as a PDF file.

6 Recognize MDAS-9 in computer

* Please connect MDAS-9 to your laptop using Micro 5Pin USB cable before install the driver. *

6.1 Computer with Windows XP, 7, 8, 8.1

Download RNDIS installer here: <http://movon.co.kr/downloads/rndissetup.zip>

Please download and unzip it. When you install it, please click the right button on your mouse and select “Run as administrator”.

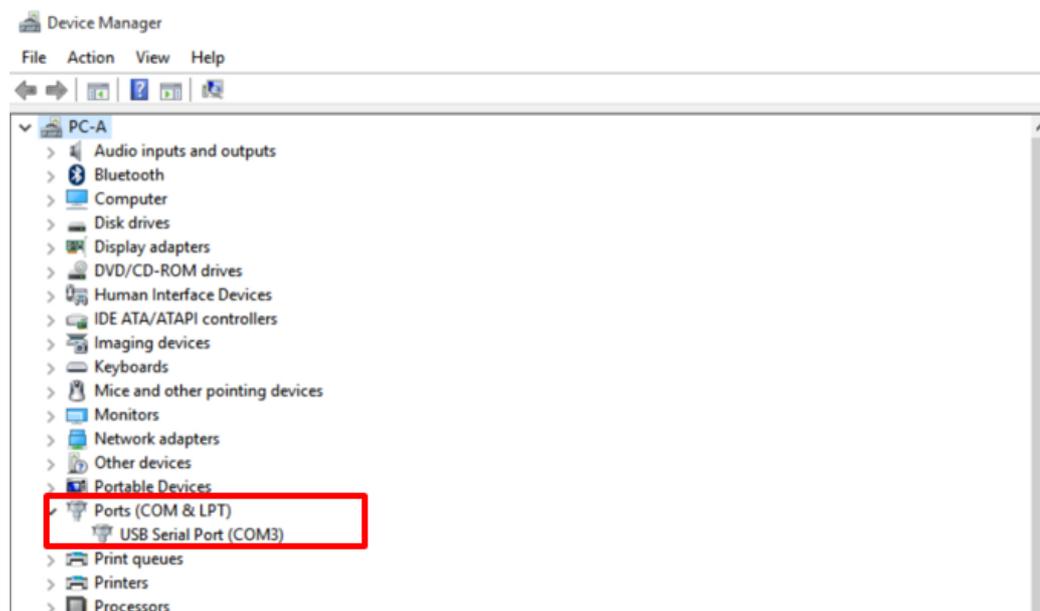
6.2 Computer with Windows 10

① Download RNDIS Driver here: <http://movon.co.kr/downloads/rndisdriver.zip>

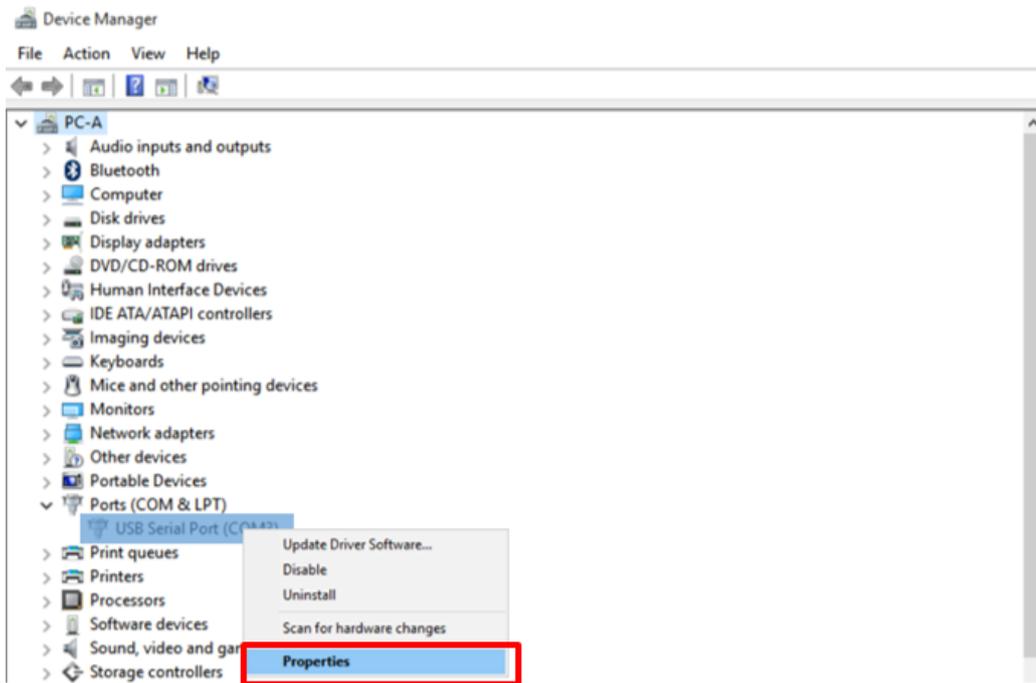
② Unzip the file and remember the unzipped folder location.

③ Press Window key + R. Type “devmgmt.msc”.

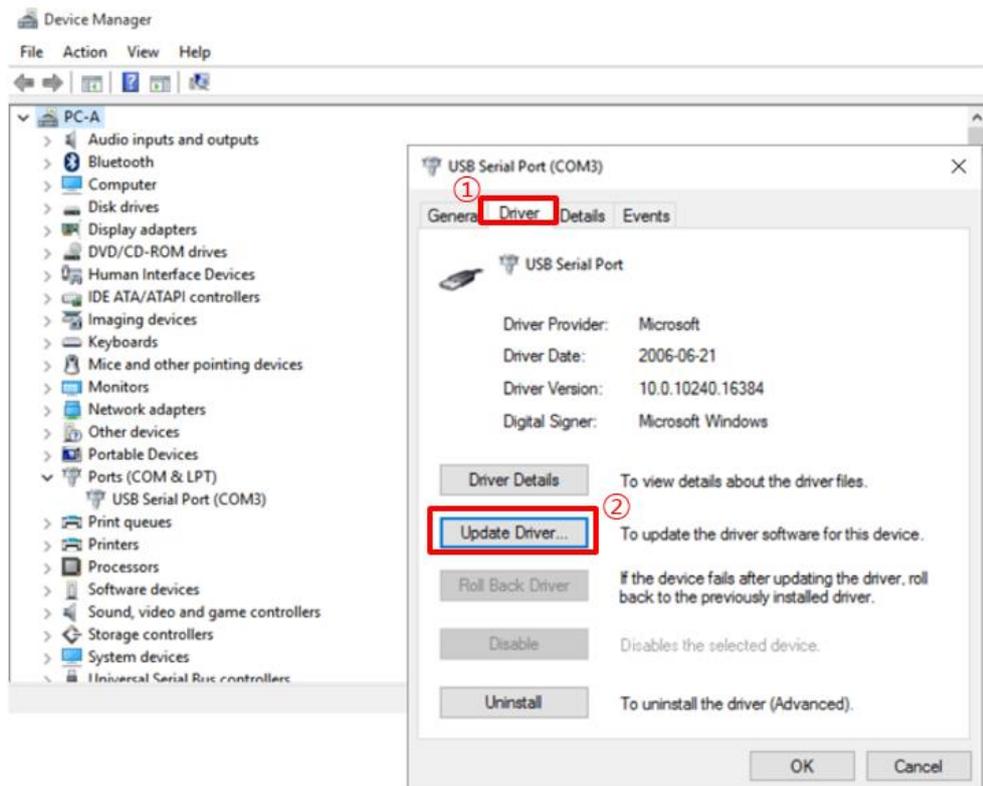
You will see Device manager and **a USB serial Port (COM x)** under **Ports (COM & LPT)**.



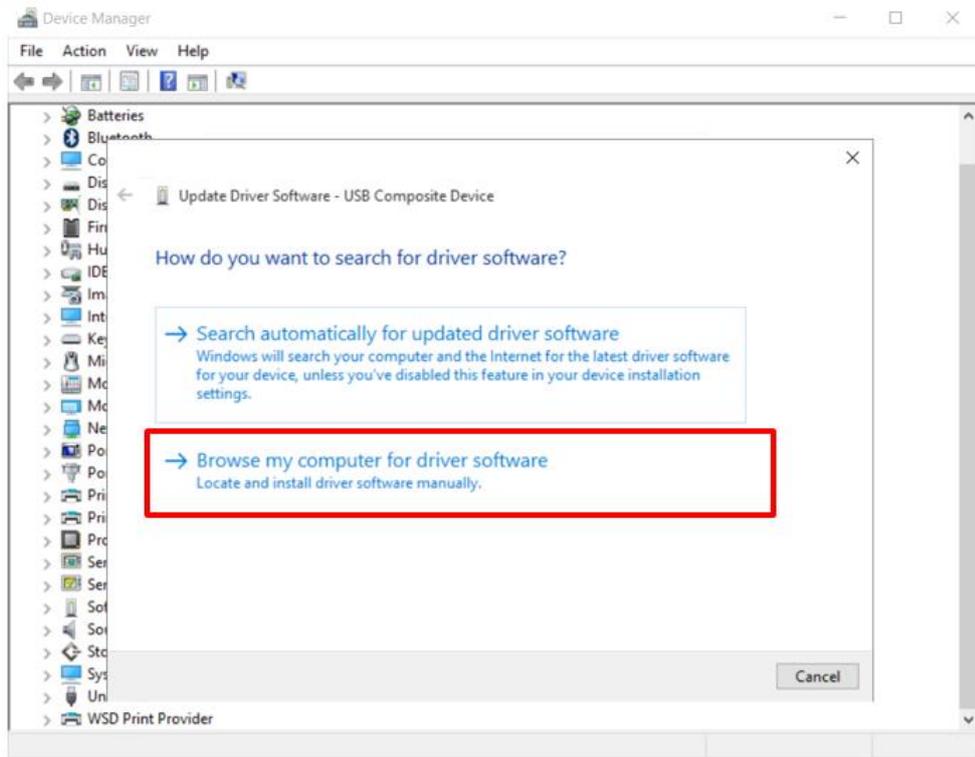
- ④ Click it using the right button of your mouse, then click “Properties”.



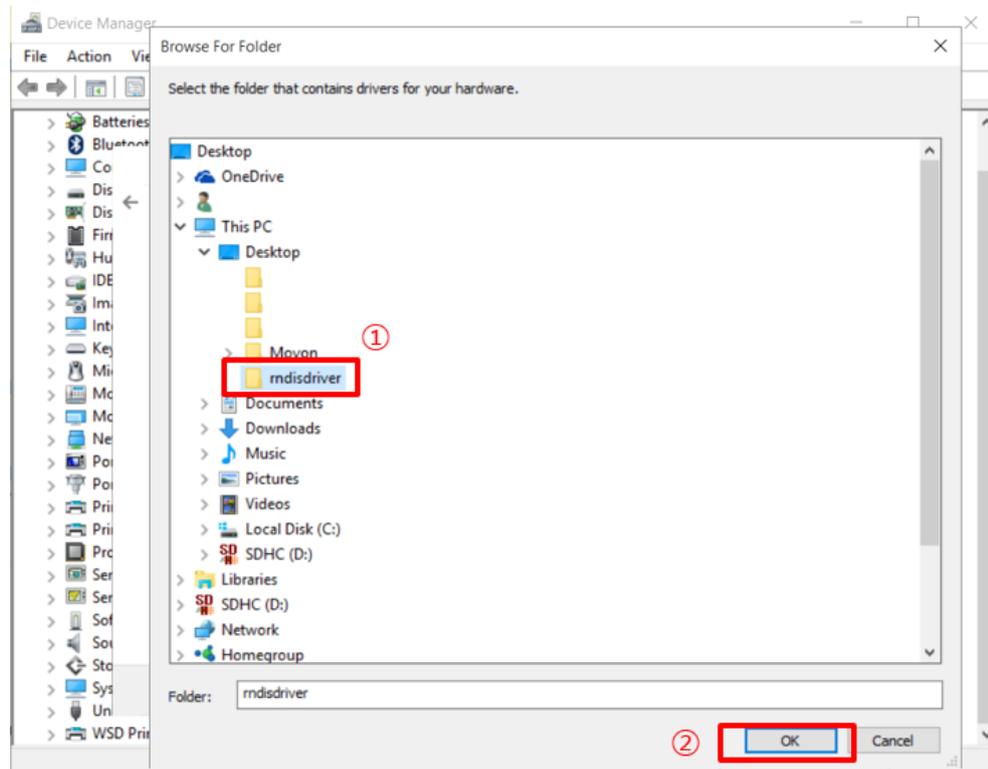
- ⑤ In the newly popped up window, Go to “Driver” tab, and click “Update Driver”



- ⑥ Select “Browse my computer for driver software”.

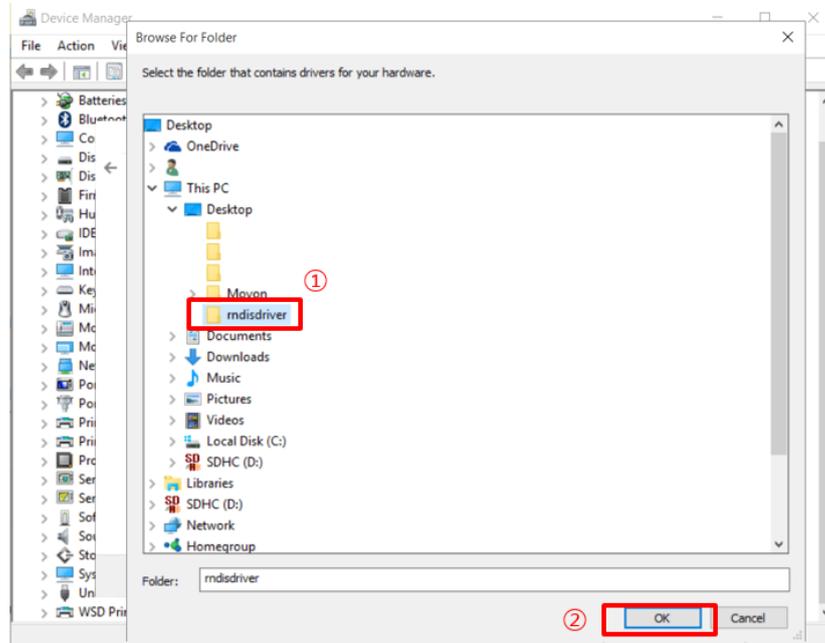


- ⑦ Click “Browser...” button and “Browse For Folder” window will pop up.

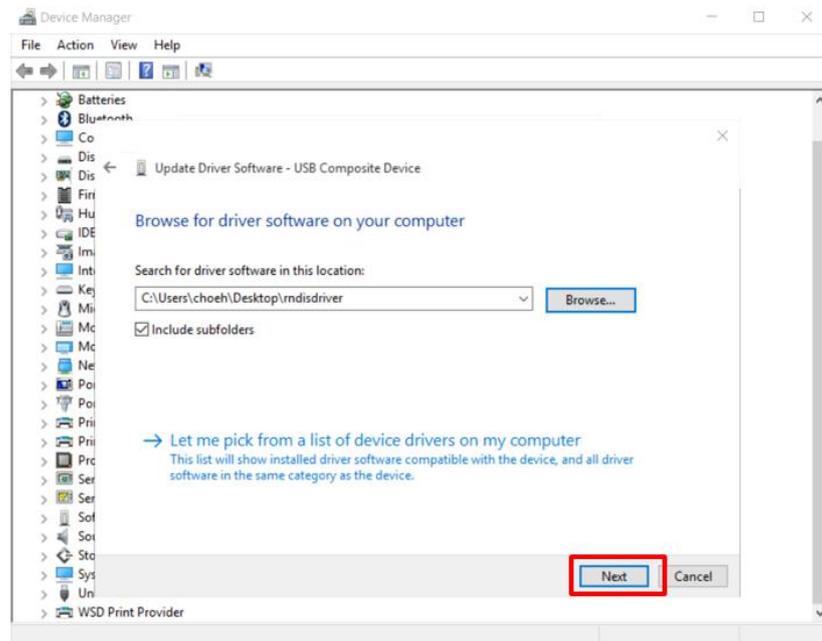


⑧ Choose “rndisdriver”.

* Remember the path where you downloaded and unzipped the file *

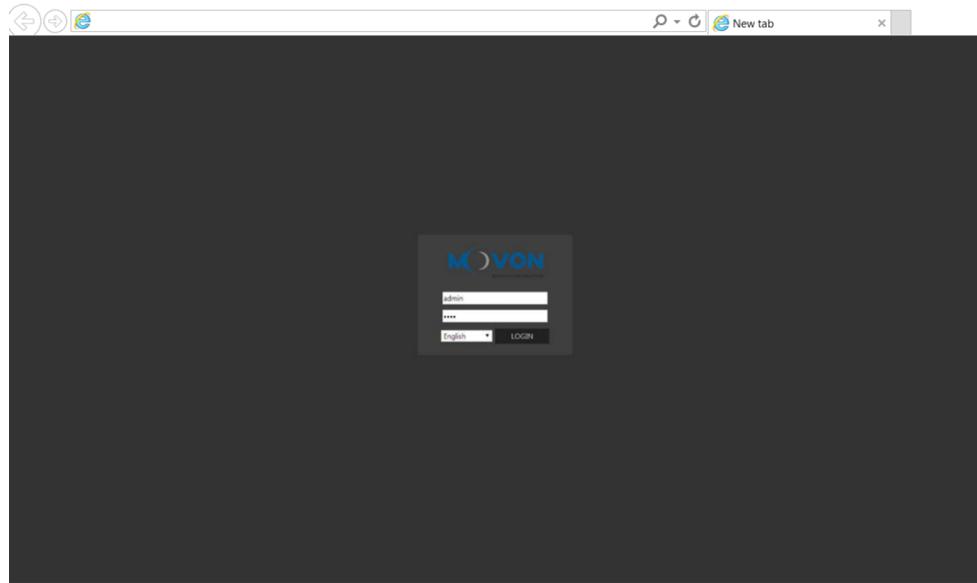


⑨ Press “Next” on the page below.



After installing the driver, you can close the windows.

- ⑩ Open a web browser and type <http://10.0.0.1>



If you see MDAS-9 page like above, you have done everything perfectly.