

UC-win/Road Drive Simulator (3 channel version)

<PR-R-3-AW-AT-100>

User Manual



FORUM 8 Co., Ltd

Driving Simulator Manual

Ver1.04.00

FORUM 8

2010.3

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Introduction

The handling notice described in this manual applies to the 3 channel Driving Simulator (Model: PR-R-3-AW-AT-100) as of March, 2008. Please note that the contents of this manual are only applicable to the above mentioned model of the driving simulator. The contents and specifications of this manual may be changed without prior notice.

1. Handling Notice

Before using the Driving Simulator (equipment), please read this chapter and use our products after understanding the contents in this notice. In this chapter, the general notice of the system configurations of our product is also included.

Essential Procedures

- ◇ **When you connect the computer (PC) to the equipment, please make sure you adhere to the following guidelines.**

- ◇ **Please connect the equipment when the power is off.**

Only connect the equipment to PC when the power is off. In the event that connection is carried out with live power supply, there is a possibility of getting an electric shock.

- ◇ **Please backup your PC data before connecting DS.**

In the event that you choose not to backup your data, please note that we will not shoulder or bear any form of responsibility for your data loss.

- ◇ **Please stop using the equipment immediately if there are any strange sounds are produced from the speakers.**

If the speaker volume is too loud or strange sound is produced from the speaker, please turn off the electrical supply and stop using it as it may cause potential deafness.

- ◇ **When you dispose of the equipment, please dispose it according to the local governmental laws and regulations.**

Disposal information of the country should be obtained directly from the local government.

Prohibited Matters

- ◇ **Please do not disassemble or reassemble the equipment.**

This may be potentially hazardous and can cause a breakdown.

- ◇ **Please do not leave the equipment in these locations as it may potentially lead to breakdown due to overheating and electrical shock.**

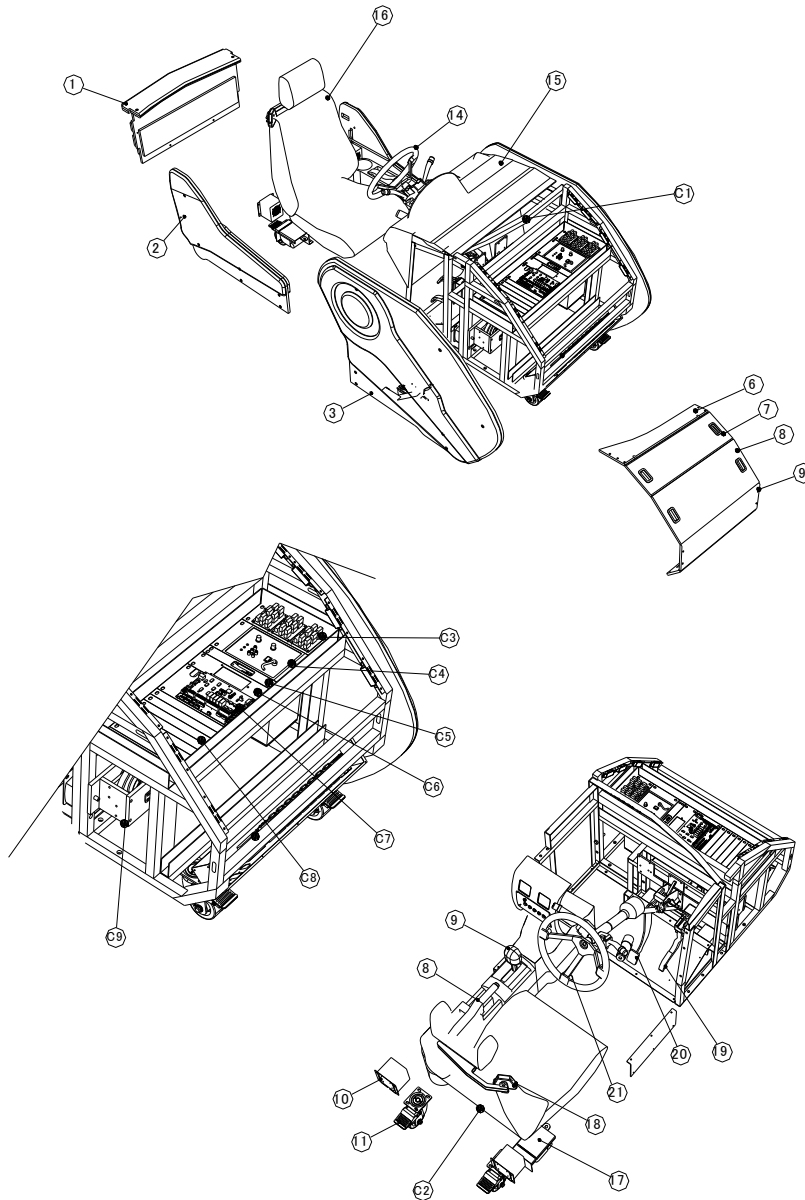
- near live fire, locations with excessive heat
- areas with direct sunlight
- areas near strong magnetic fields and static electricity
- dusty areas
- locations that vibrate
- Uneven ground
- areas at risk of electronic/water leakage

- ◇ **Please ensure that liquids do not come in contact with the equipment interior**
In the event that liquids come in contact with the interior of the equipment, please disable the power of both the PC and the equipment. Unplug the machine immediately. Continued usage may be hazardous and can potentially lead to fire, breakdown and electrical shock.
- ◇ **Please do not disable the PC or electrical power or unplug the equipment when the software applications are running.**
This may result in potential data loss.
- ◇ **Please do not use the equipment with rated specification power.**
This may be potentially hazardous and can cause a breakdown. In the event that you are using the equipment in regions with more than 220V, please remember to use a transformer. When you connect the transformer to the equipment, please adhere to the regional guidelines.
- ◇ **Please do not put the foreign material into the interior of the equipment.**
This may be potentially hazardous and can cause a breakdown.
- ◇ **Please do not touch the equipment interior when you move the equipment.**
This may potentially cause an electric shock.
- ◇ **Please do coil or bunch up cables of the equipment and PC.**
Please use the equipment with the cable uncoiled as it may potentially cause overheating and result in an eventual breakdown.
- ◇ **Please exert strong pressure to parts of the equipment.**
If too much pressure is exerted to the steering or pedal, it may be a cause of deformation and breakage.
- ◇ **Please exert strong pressure to the liquid crystal panel of the equipment.**
This may potentially cause the screen to crack and the panel to be malfunctioned.
- ◇ **Please do not put your ear close to the speaker of the equipment.**
In the event of unexpected sound production, it can potentially cause deafness in the ear.
- ◇ **Please do not setup/move the equipment by yourself.**
Due to the weight of the equipment, moving it single-handedly is not advised. Should you need to move the equipment, make sure that sufficient manpower is being utilized to avoid over-exertion.

2. Parts and their names*

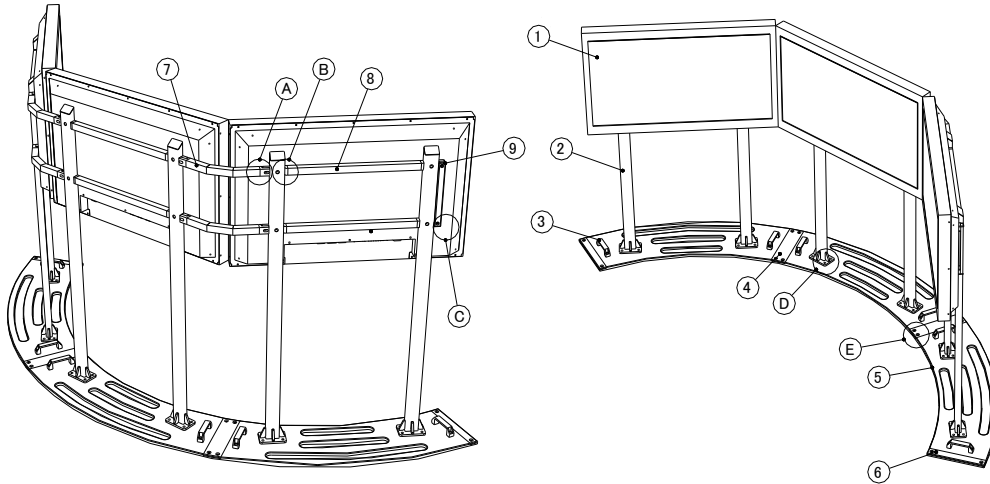
This package contains 1 Driving Simulator (DS). 1 DS comprises following module and parts.

2-1. Driving Simulator hardware



Parts No.	Name	
1	MDF Cover–Rear Assembly	1
2	MDF Cover–Rear Right Assembly	1
3	MDF Cover–Rear Left Assembly	1
4	MDF Cover–Front Right Assembly	1
5	MDF Cover–Front Left Assembly	1
6	MDF Front Cover 1	1
7	MDF Front Cover 2	1
8	MDF Front Cover 3	1
9	MDF Front Cover 4	1
10	Rear Speaker Assembly	2
11	Caster	4
12	Parking Brake	1
13	Auto Gear	1
14	Steering Handle	1
15	Crash pad	1
16	Seat	1
17	Seat Belt Module	1
18	Seat Belt Bracket	1
19	Accelerator Pedal	1
20	Brake Pedal	1
21	Air Bag Module	1
C1	Vibration Pad–Under Crash pad	1
C2	Vibration Pad–Seat	1
C3	PDB Board	3
C4	Woofer Amp' Speaker	1
C5	Vibration Amp'	1
C6	DC Power Supply	1
C7	MDAQ Board	1
C8	Blanking	6
C9	Passive Steering Wheel Mech'	1

2-2. Monitors

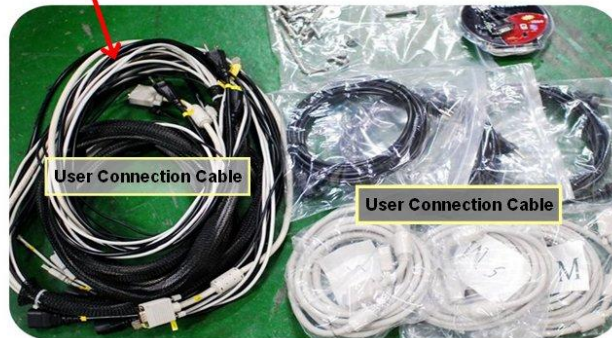
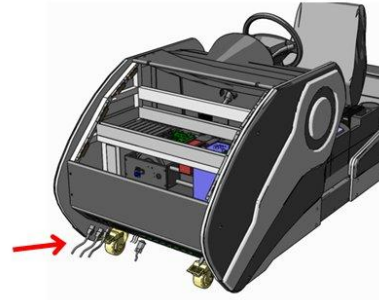


Parts No.	Name	Model NO	
1	Monitor 42' LCD	IDV-421FH	3
2	Mount Column		6
3	Carrying Handle		6
4	Joint Plate		2
5	Round Base plate		2
6	End-Bar		2
7	V-Bar		4
8	Center bar		6
A	Bolt(Round Button Shape)	M8 x 20L(SUS)	1
B	Bolt(Round Button Shape)	M8 x 45(SUS)	12
C	Bolt(Socket head)	M8 x 20L	1
D	Bolt(Round Button Shape)	M8 x 15L	24
E	Bolt(Champered Button Shape)	M8 x 15L	8

2-3. Cablings

2-3-1. Driving Simulator hardware

Class*	standard	Usage*	
Power Cables,	AC x 3, 100V 5m	For incoming	2
Power Cable	AC x 3, 100V 5m	For outgoing	1
Serial Cable	D-sub 9Pin Female-Male 5m	MDAQ signal in/out	1
USB Cable	Type A - Type A 5m	MDAQ signal in/out	1
Audio Cable	3.5mm Stereo 5m	Audio	3
USB Cable	Type A - Type A 5m	spare part	1
LAN Cable	RJ45	spare part	1
VGA Cable	D-sub 15Pin Female-Female 5m	spare part	1



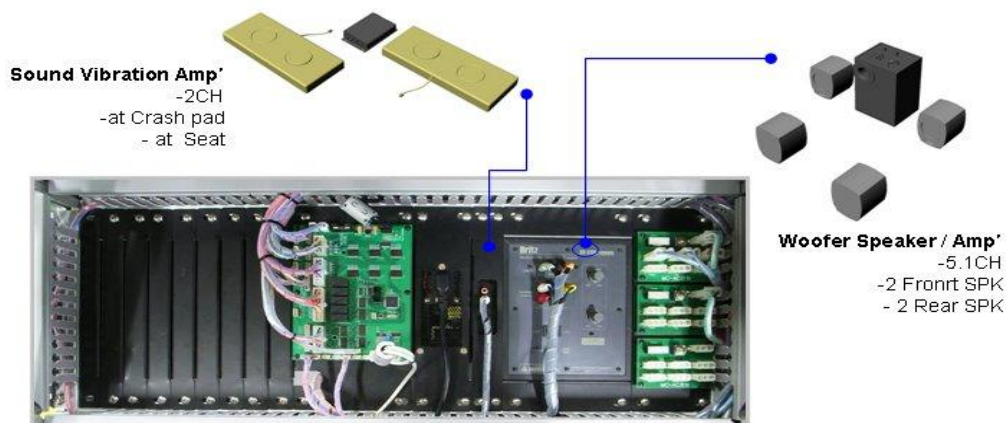
2-3-2. Monitor

class	standard	usage	
Power Cable	AC x3, 100V 5m	Incoming	3
VGACable	D-sub 15Pin Female-Female 5m	Video output	3



2-4. Adjusting sound volume/ vibration

This part shows the process of adjusting speaker/amplifier volume level.
 Woofer unit is in the right of checking panel on the back of the driving module.
 For adjusting speaker and amplifier, use volume knob of the woofer.



For adjusting sound volume of the speaker, use the “VOLUME” knob and for speaker volume, use the “BASS” knob. *1 As for speaker volume, you can adjust it by Windows. Therefore, we recommend set “Max” on this device and adjust it from Windows*2



*1 When you adjust the sound volume, be sure to adjust little by little. Sudden increase in volume might

*2 cause a disruption in your ears.

For adjusting Windows sound volume, ask PC makers or Microsoft Corporation

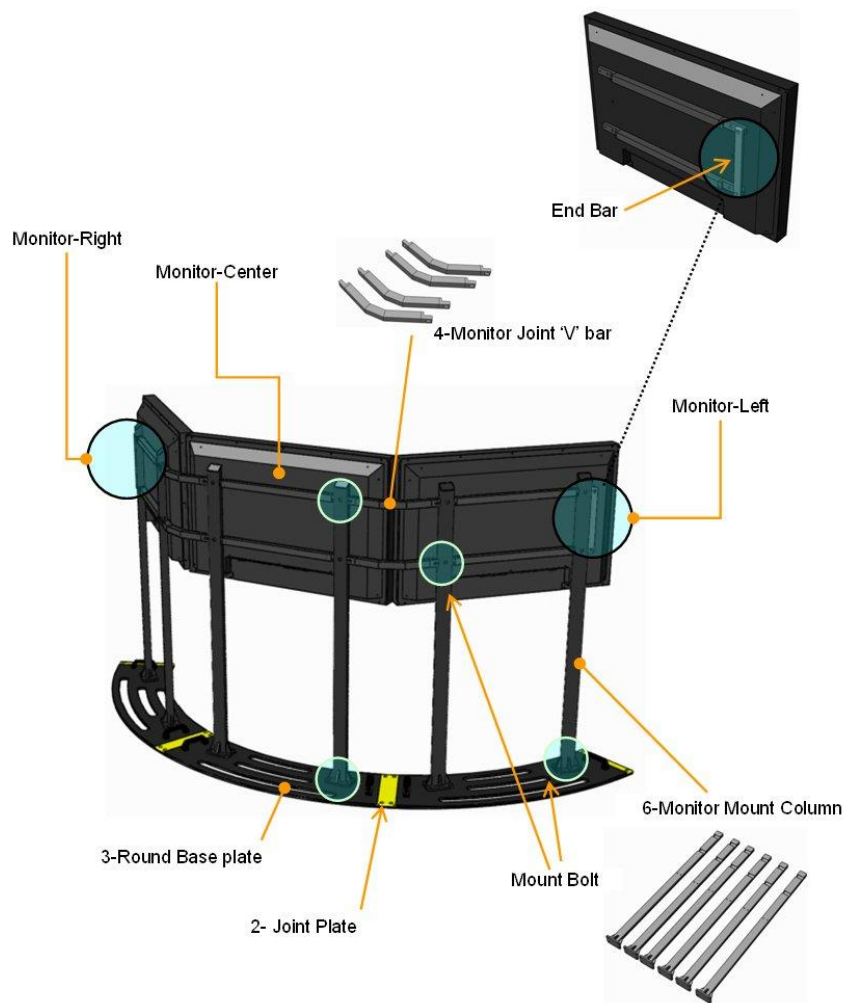
3. How to assemble Driving Simulator

Assemble parts following images below for reference

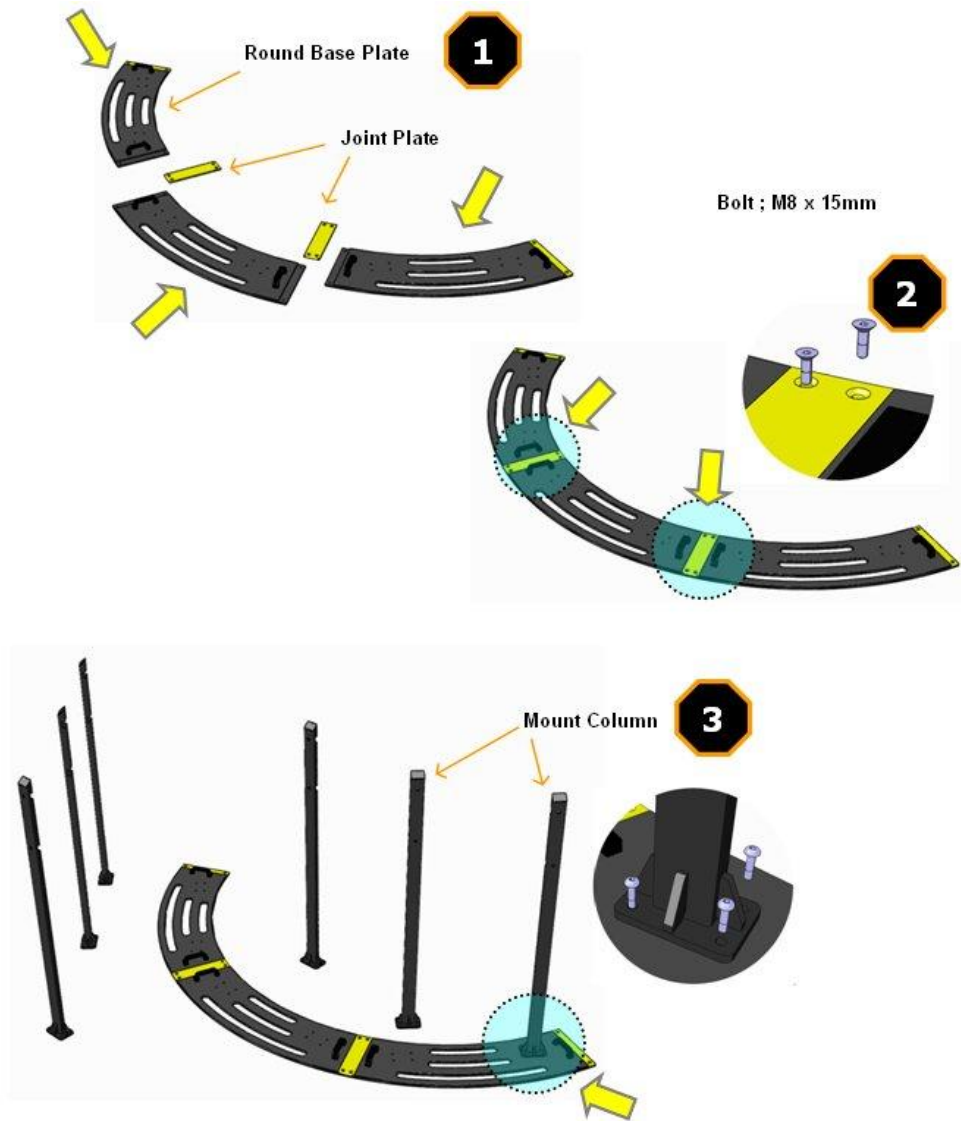
Finished assembly



Finished monitor assembly

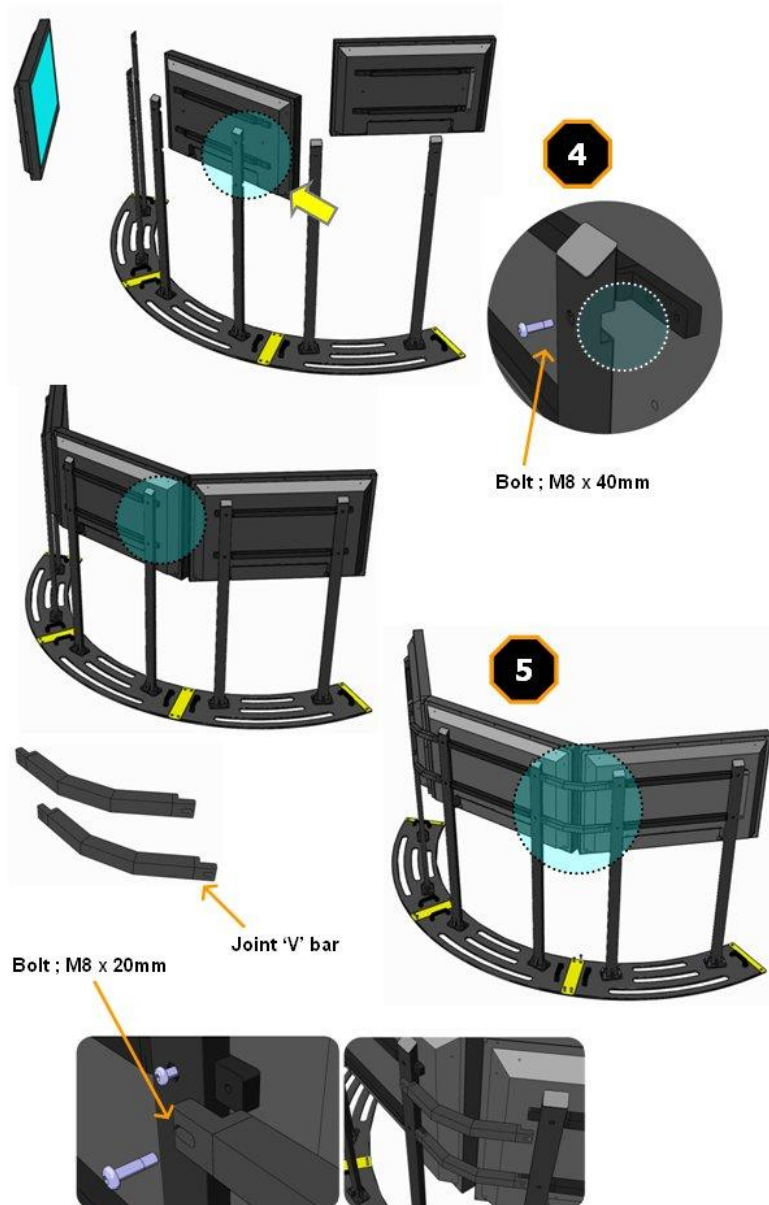


① Assemble monitor bracket in the following order.

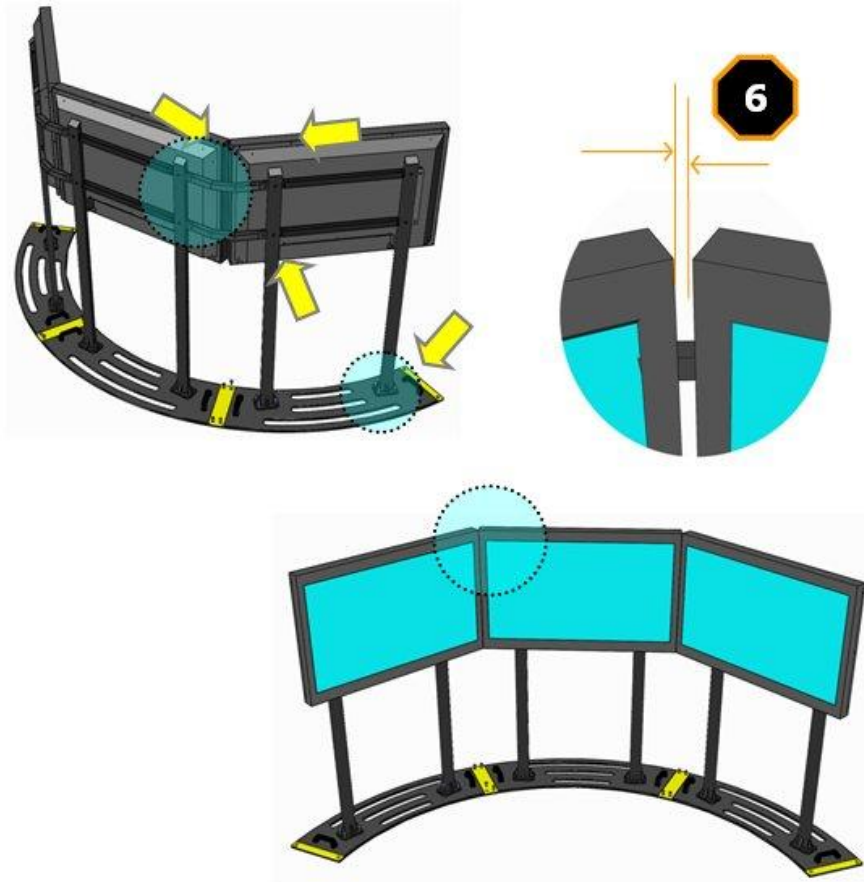


② Assemble monitor bracket in the following order.

(*Caution: Do not sum up all the bolts firmly. It makes the later adjusting harder.)



③ If you have finished V bar above, sum up each bolt hard.



④ If you finish assembly, specify the position to place and fix the casters.

⑤ Connect the simulator and PC with cables. (see the next page)

4. Connecting to computer

This chapter shows important points in connecting DS to PC.

***)Before the work, be sure to turn off all the powers of DS and PC.**

I/O board on the back has terminals as shown below.



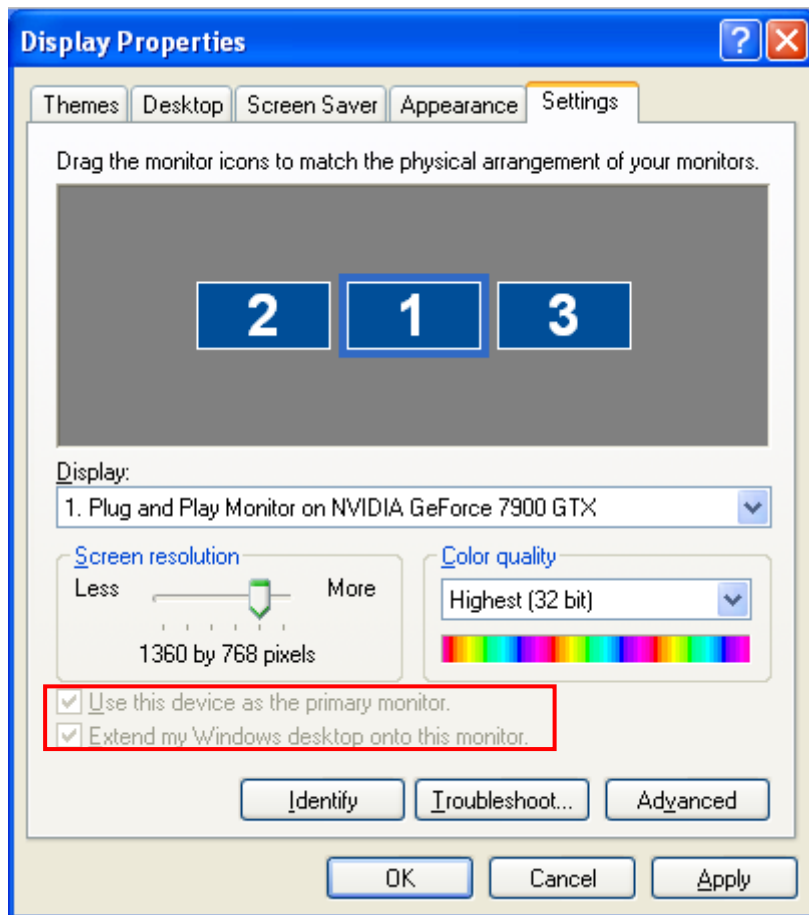
4-1. Connecting Monitor Cable

This part shows how to connect 3 Monitors of DS to PC. The monitor is connected to PC by D-Sub15pin type Cable. Connect each Monitor Cable to the Monitors and directly. VGA1~3 are physically arranged as shown below.



4-2. Video signal settings

Open monitor property and next “setting” tab. Select each monitor’ s and check “Windows desktop is moved on this monitor. (In addition, for the 1st monitor, check “use this device as primary1). * Next, drag the Monitor icon and set according to real positioning.



Click “OK” to confirm. All Windows settings were finished.

4-3. Connecting other Cables

Connector name		説明
AC Power	AC IN1	Connected to outlet. Set upper switch “-”.
	AC IN2	Connected to outlet. Set upper switch “-”.
	AC OUT	Connected to PC outlet*1
USB HUB1-4		It can not be used because it is not connected inside.+
AUDIO	FR	Connected to yellow-green terminal of the PC sound card
	CEN	Connected to orange color terminal of the PC sound card.
	RE	Connected to gray color terminal of the PC sound card
VGA1-3		It can not be used because it is not connected inside. *You have to connect Monitor Cable directly to PC's video output.

Serial1-5	Only 1 can be used. (2~5 can be used.)
LAN	It can not be used because it is not connected inside.+
USB	Out 2 ports can be used. (2ports inside cannot be used)

-
- *1) If you supply power from DS to PC, turning off the power causes the PC to shut down.
To switch DS power independent separately from PC, Prepare PC power supply
- *2)? separately.
- ? For details of the connection, as PC maker.
-

5. UC-win/Road Setup

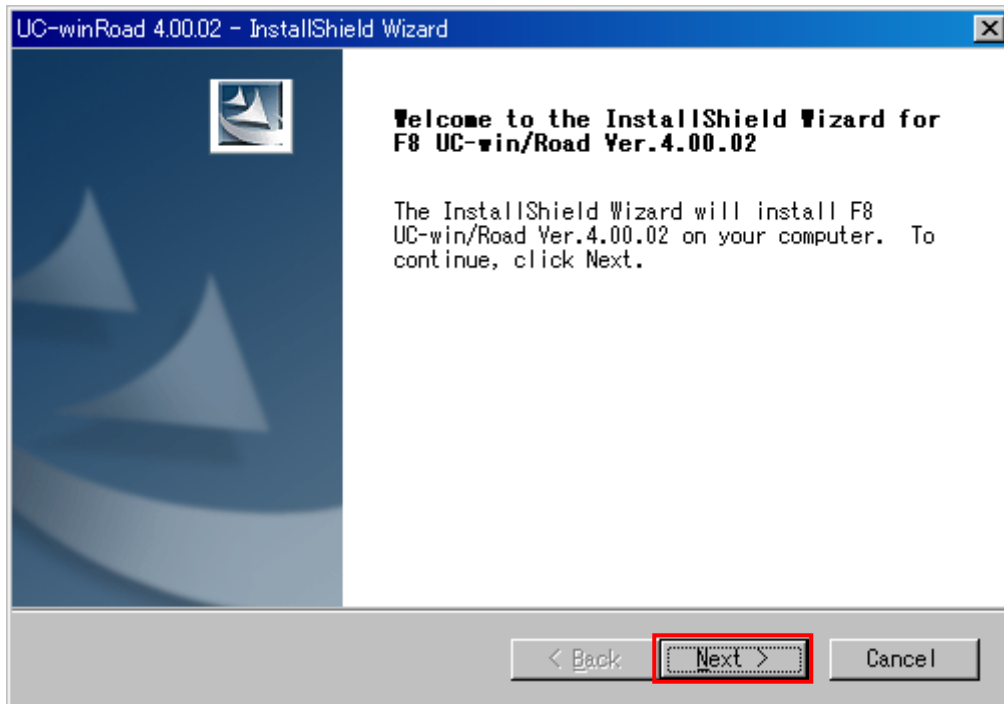
This chapter shows how to update UC-win/Road standard product or customized product.

*Update before inserting Driving Simulator USB keys(2).

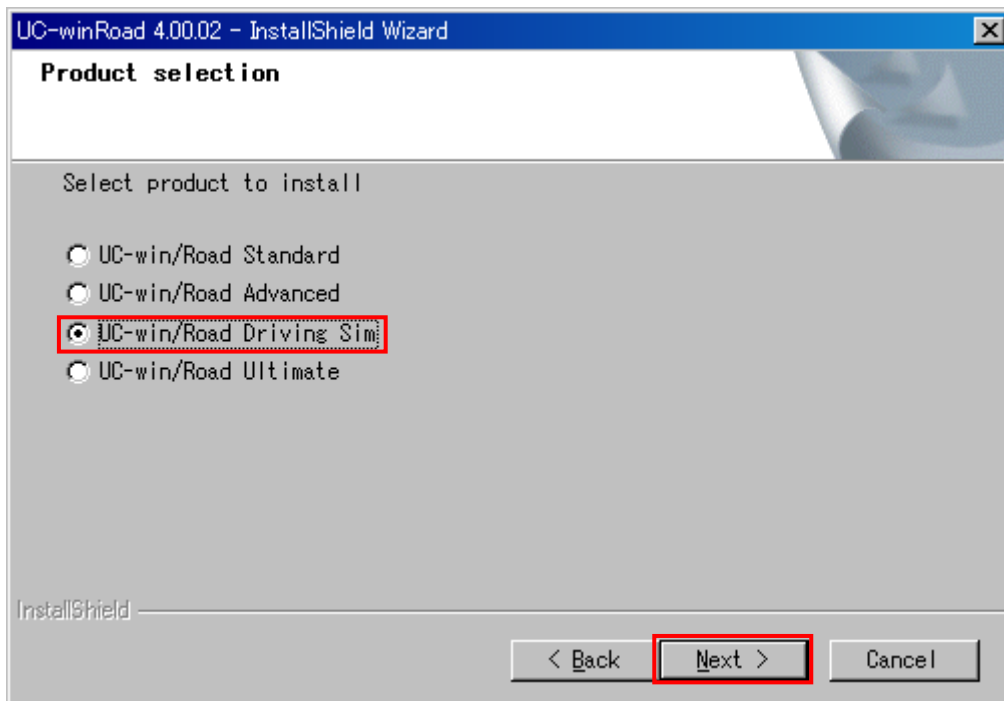
5-1. Product version Installation

If you insert the install disc of this program into CD drive, the install program is automatically activated. In case the setup doesn't automatically activated, please activate the install program by double-clicking "Setup. Exe" of the CD. After setup screen display, please click "Next" button.





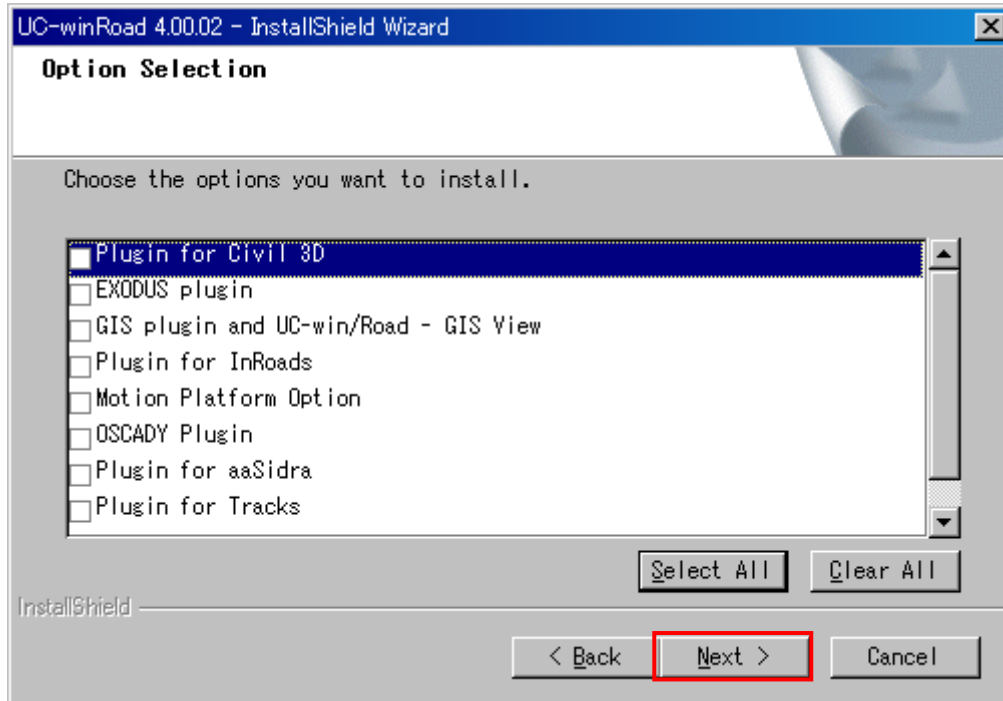
Select the product to install. Please correctly select the version you bought, then click "Next" button. In case you bought customized version, you can select any version.



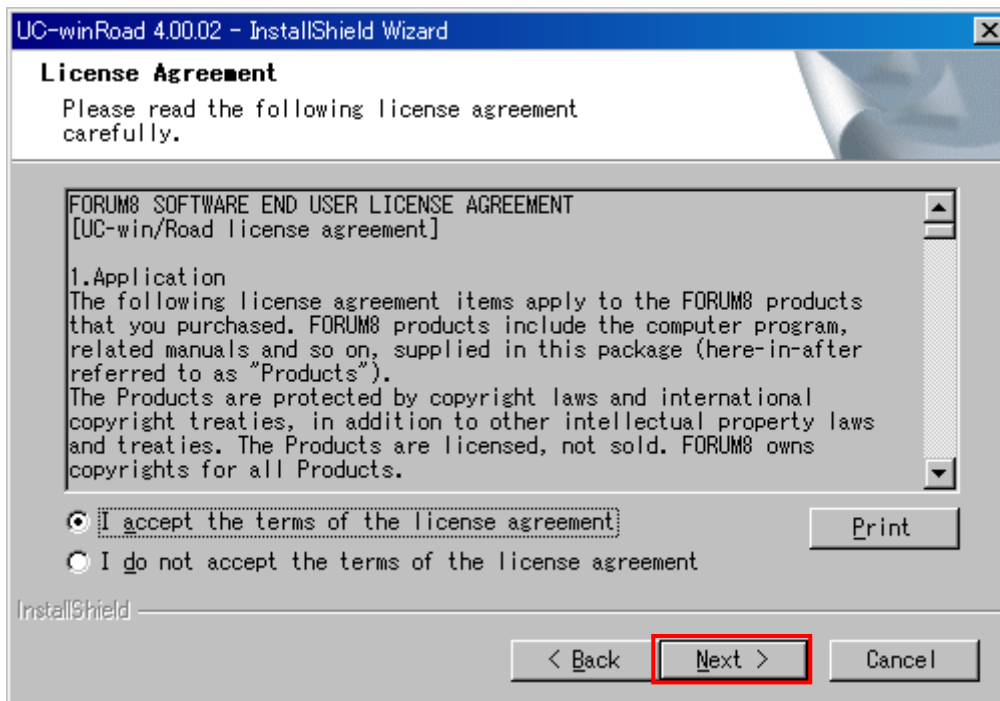
Check "Driving Simulation Plug-in in the next screen and click "next" .

* If you have chosen "UC-win/Road Driving Sim" in the previous screen, "Driving

Simulation Plug-in” is not displayed. Click “next” .



See License Agreement and if you agree the terms, select “I accept the terms of the license agreement” and press “Next” .



Enter user name and company name and press “next” .

* Be sure to enter user name and company name.

UC-winRoad 4.00.02 - InstallShield Wizard

Customer Information
Please enter your information.

Please enter your name and the name of the company for which you work.

User Name:
user

Company Name:
forum8

InstallShield

< Back Next > Cancel

Select setup type as below and click next. Select install option to meet your environment.* We recommend, in general, to choose “typical” .

UC-winRoad 4.00.02 - InstallShield Wizard

Setup Type
Select the setup type to install.

Click the type of setup you prefer, then click Next.

Typical Program will be installed with the most common options. Recommended for most users.

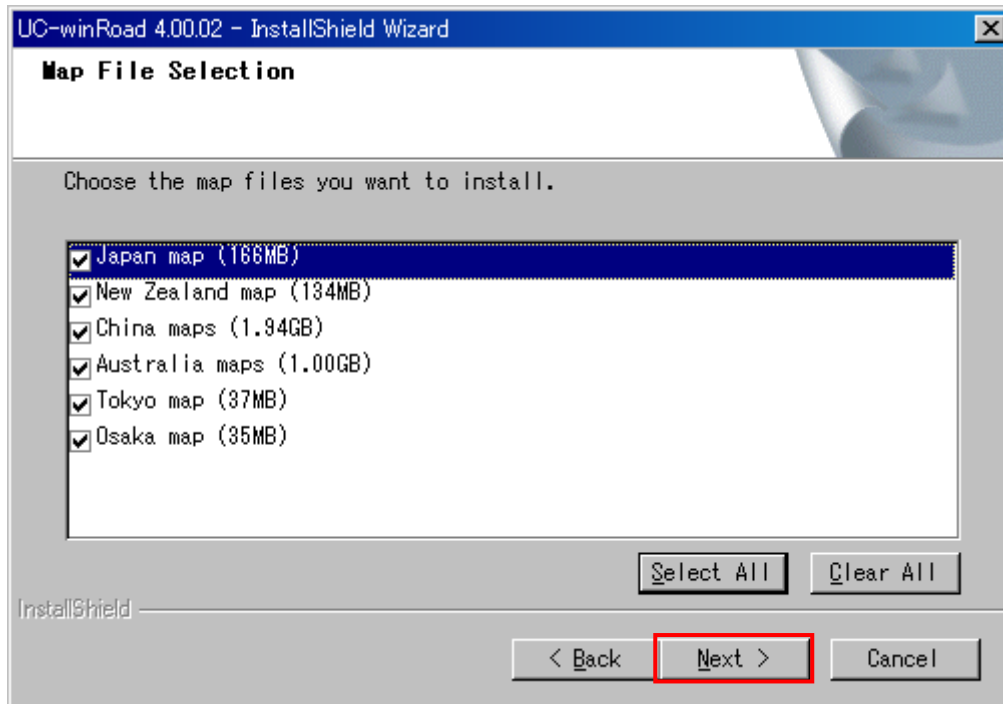
Compact Program will be installed with minimum required options.

Custom You may select the options you want to install. Recommended for advanced users.

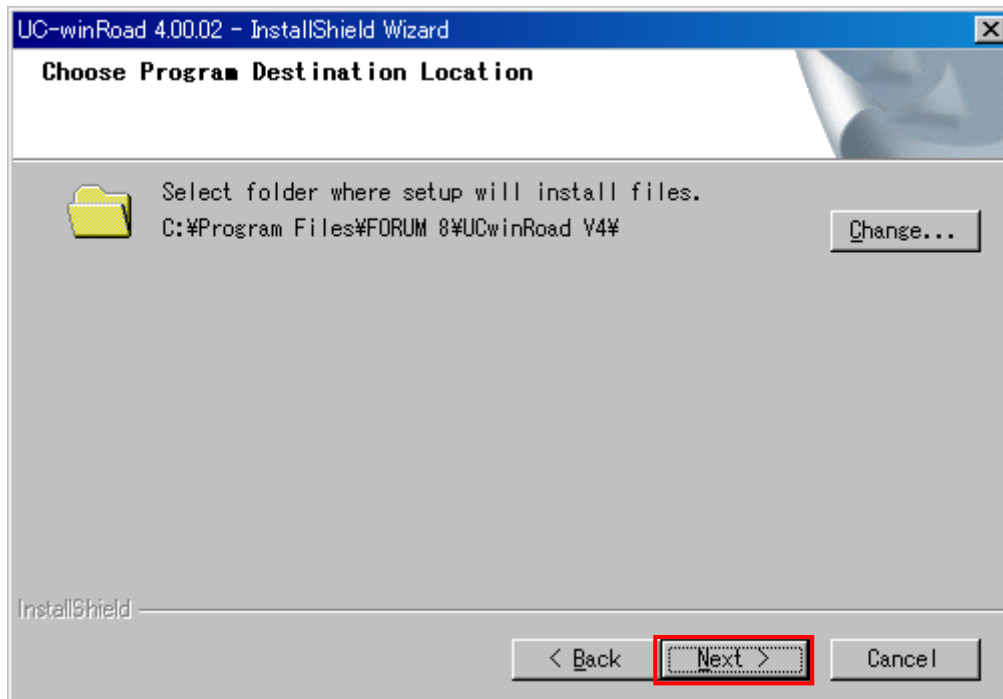
InstallShield

< Back Next > Cancel

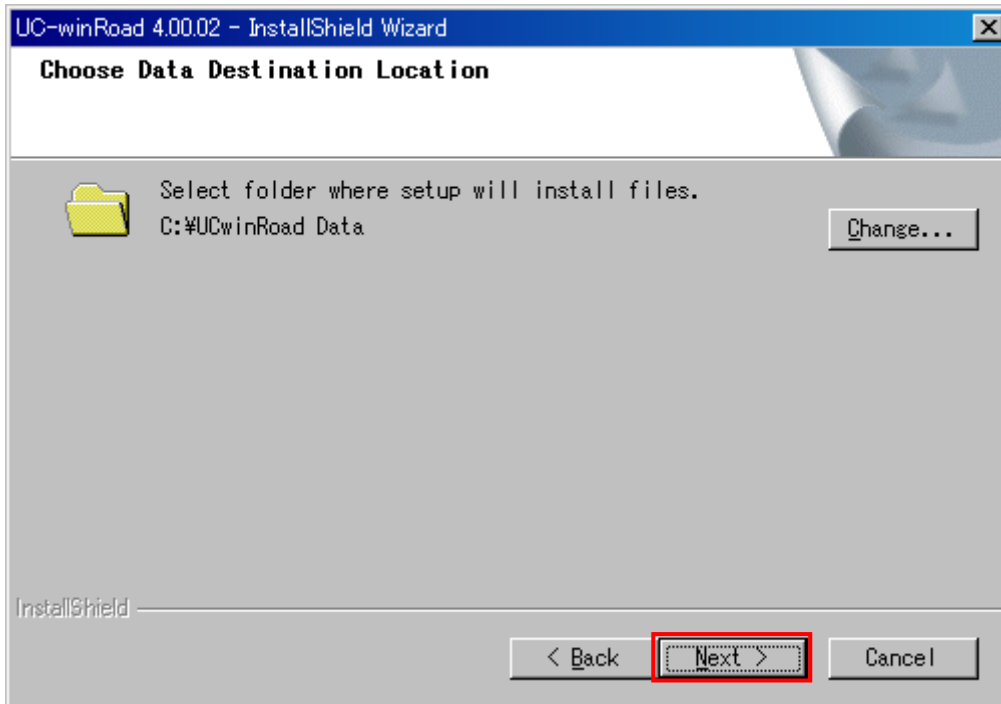
Click "Next".



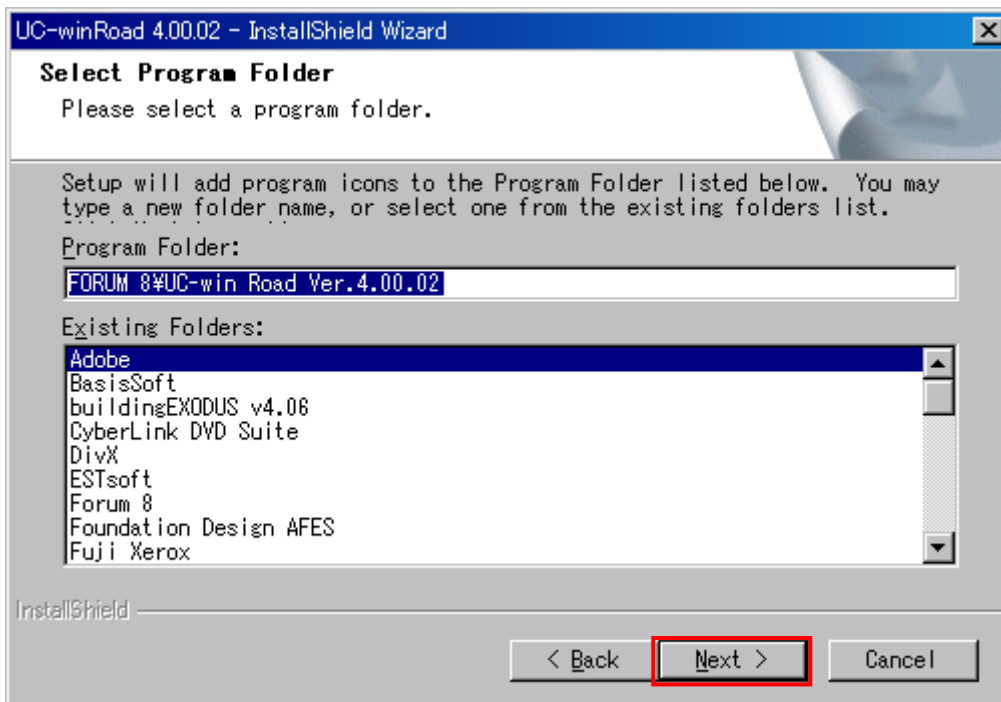
Specify the directory to install the program. Click "Next", if you don't have to change. Default destination is set "(local disk):%Program Files%Forum 8%UcwinRoad V4".



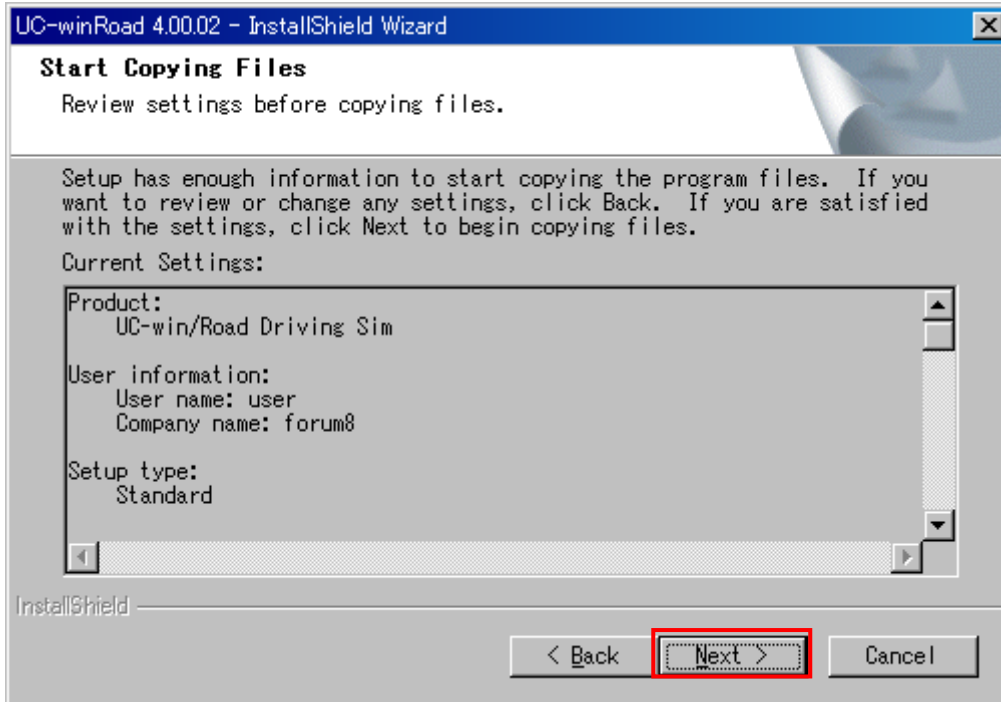
Specify the directory to install the data. Click “Next” , if you don’ t have to change.
Default destination is “(local disk):¥UcwinRoad Data”.



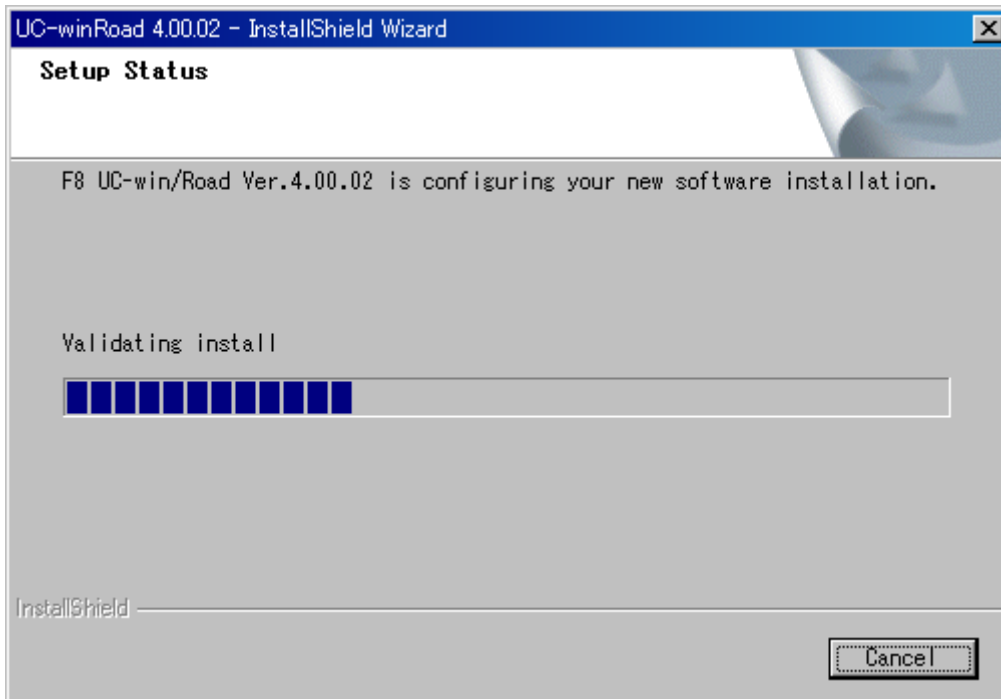
Click “Next” .



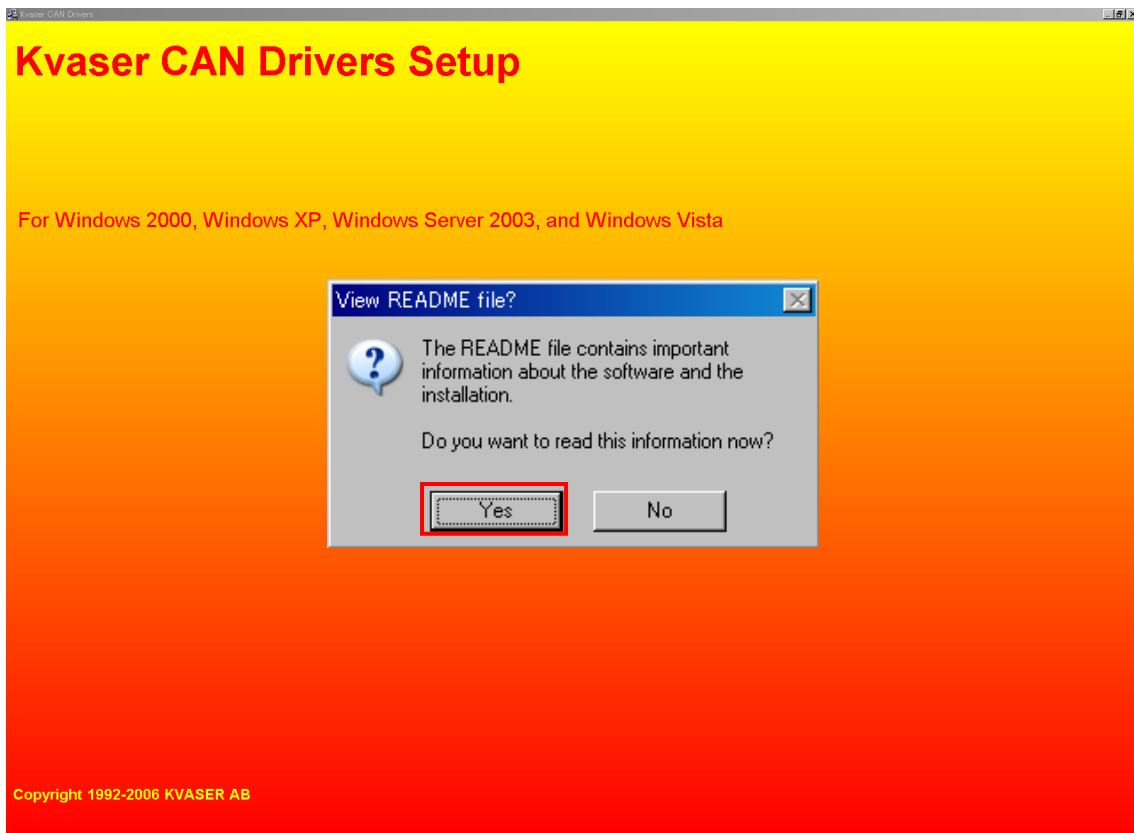
Click "Next".



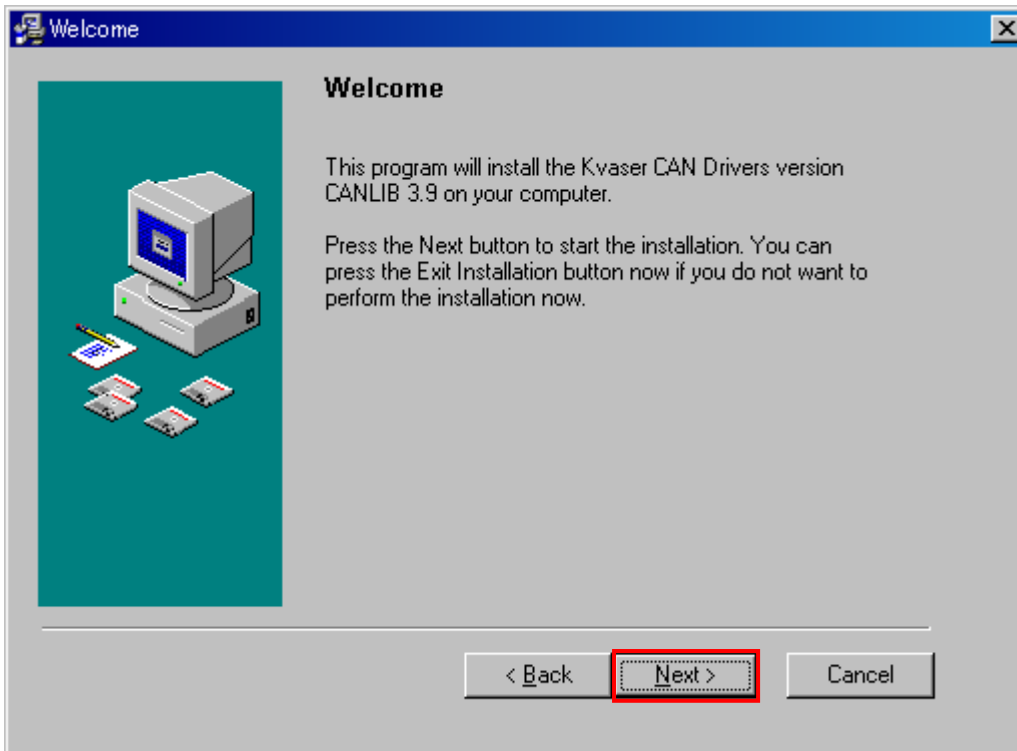
Installation begins.*



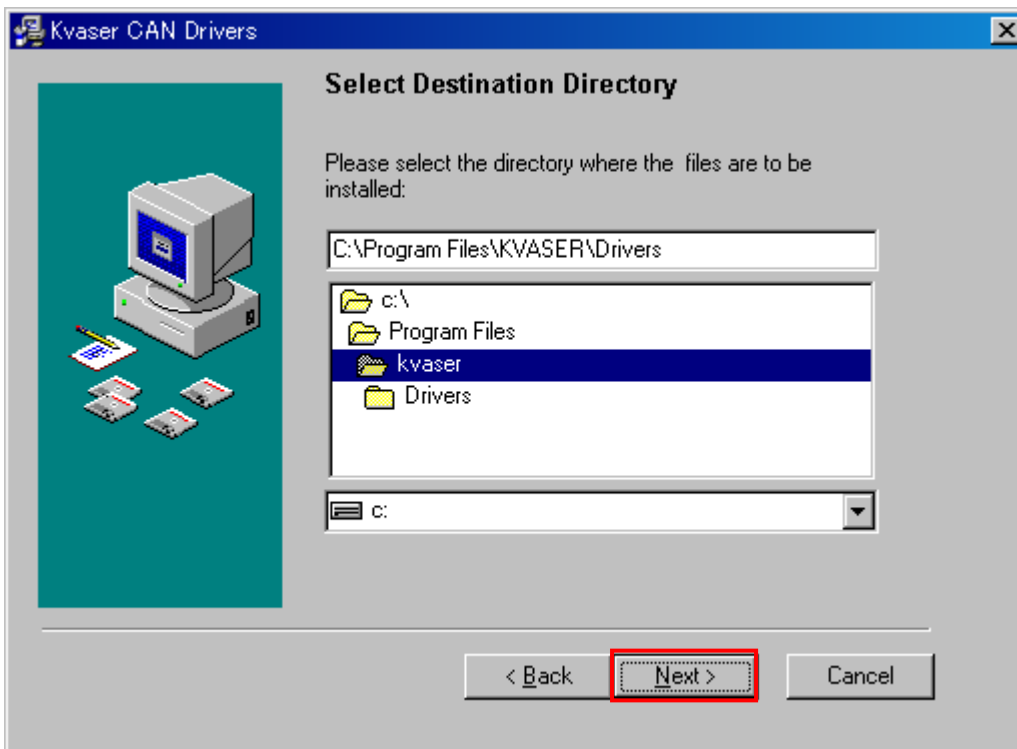
After the setup finished, Driving Simulator drive set up begins. Press “Yes” to continue.



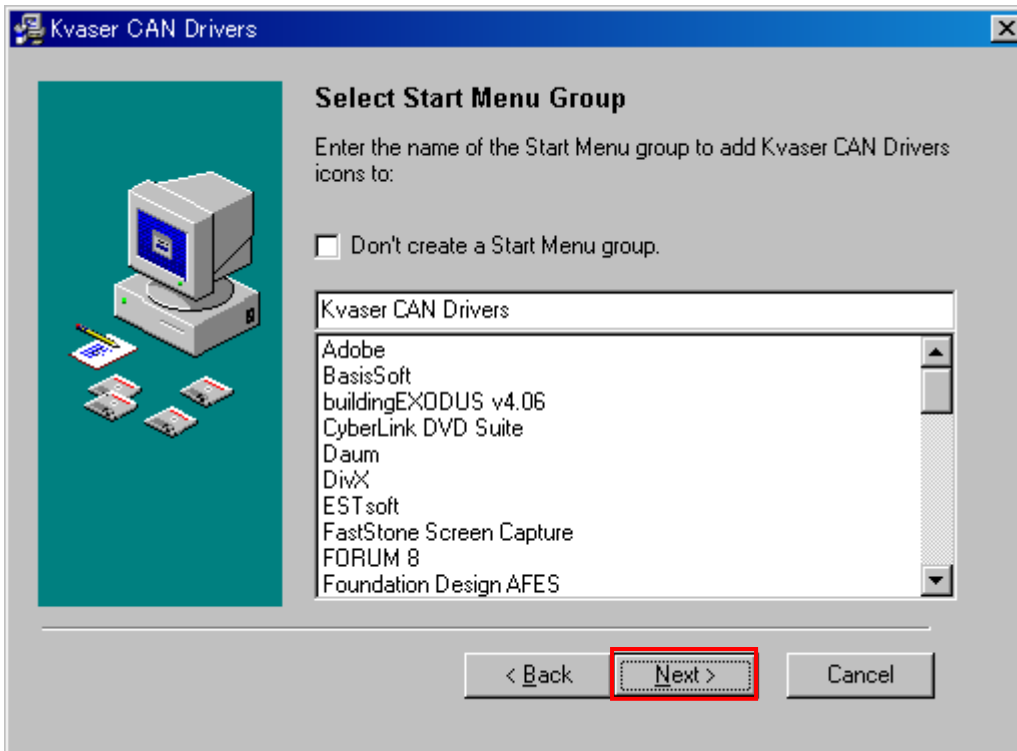
Click “Next” .



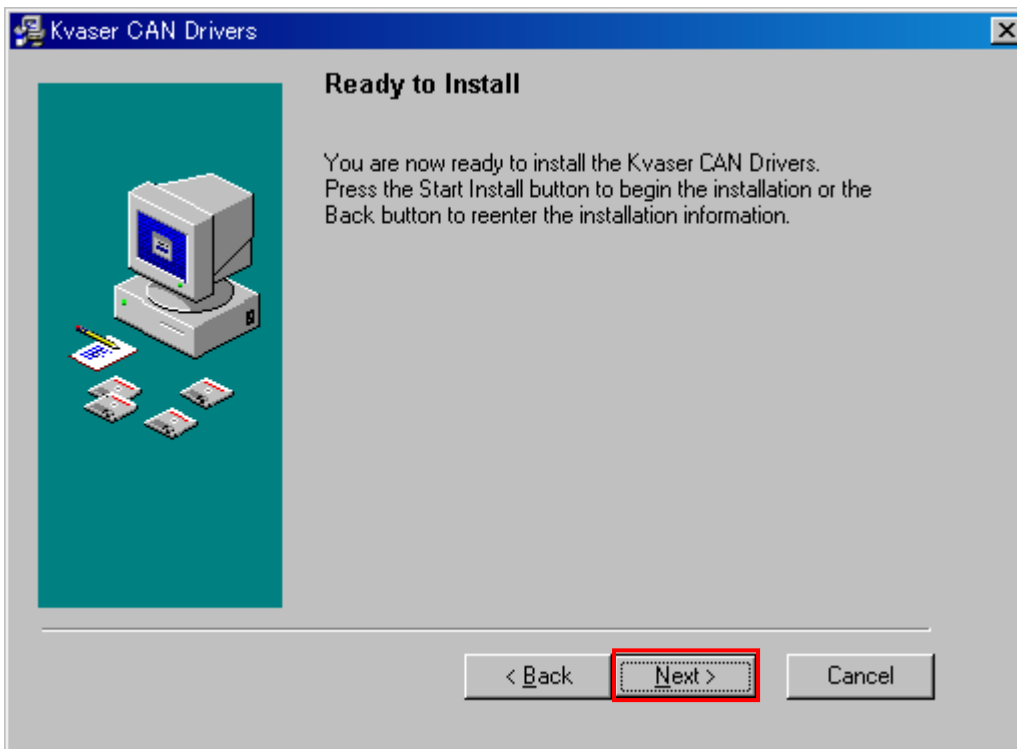
Click "Next".



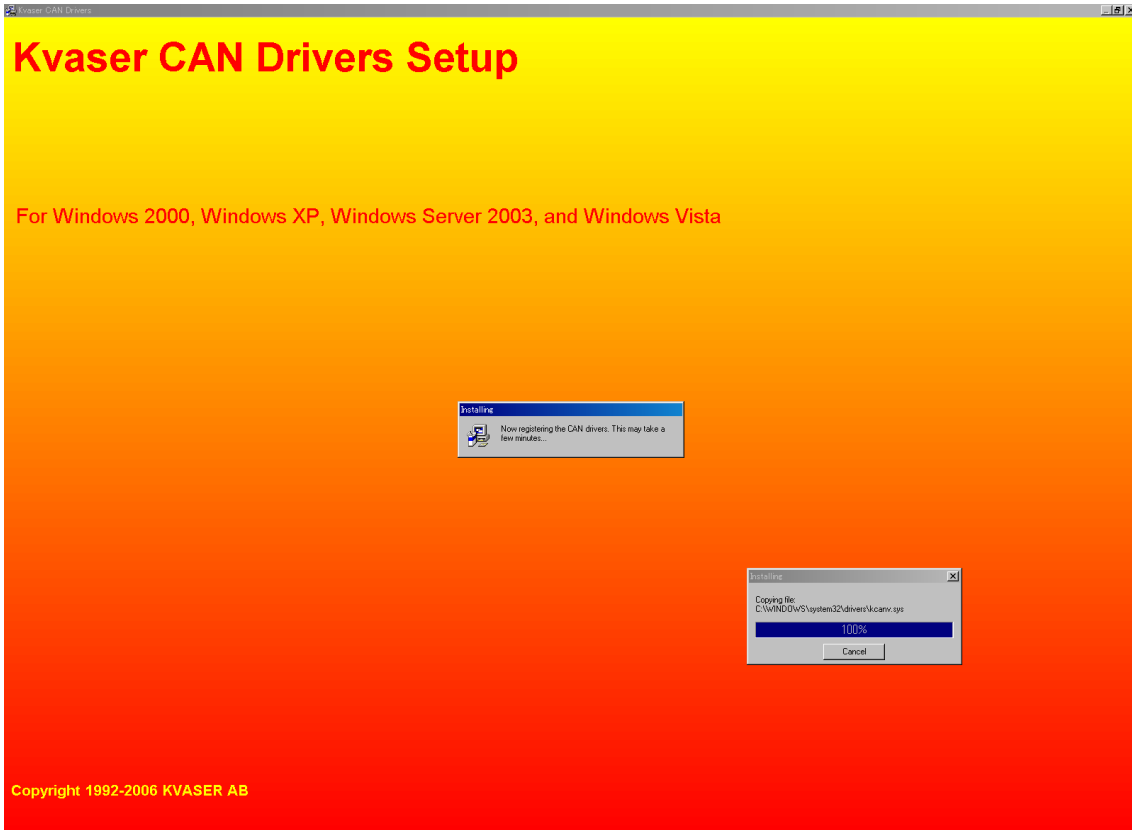
Click "Next".



Click "Next".



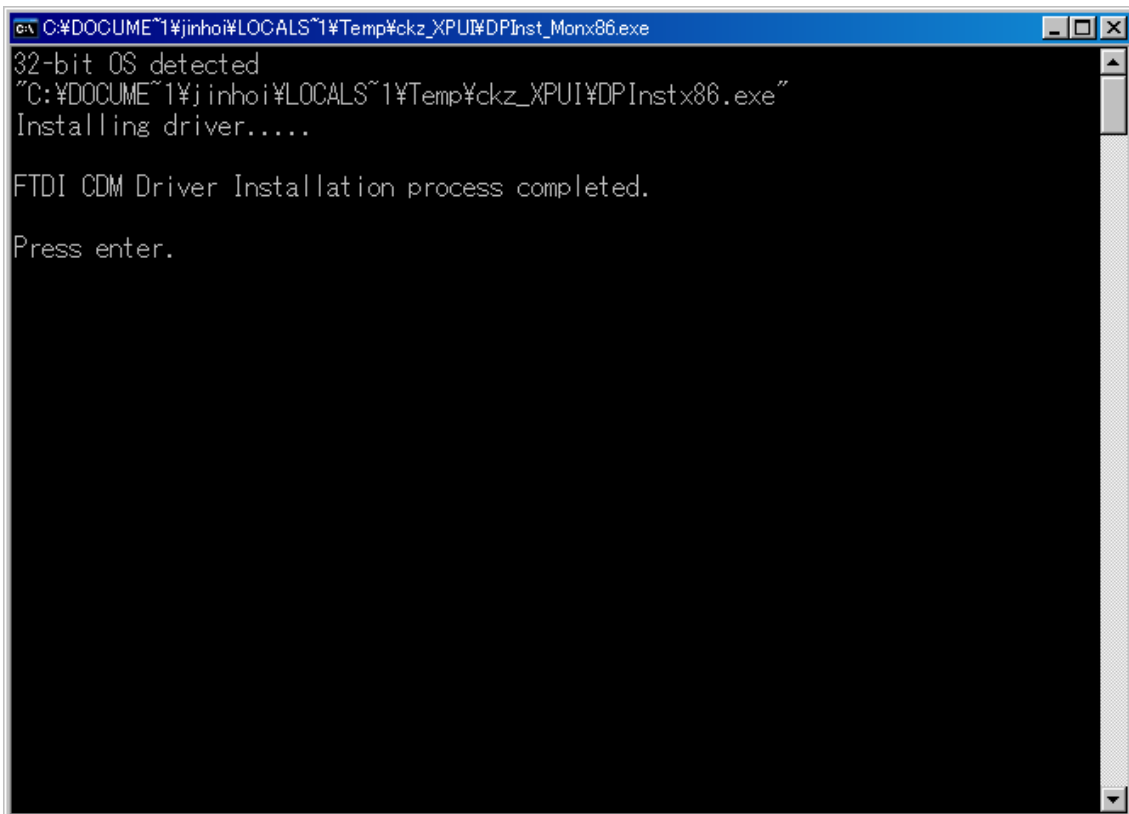
Program is installed as below.



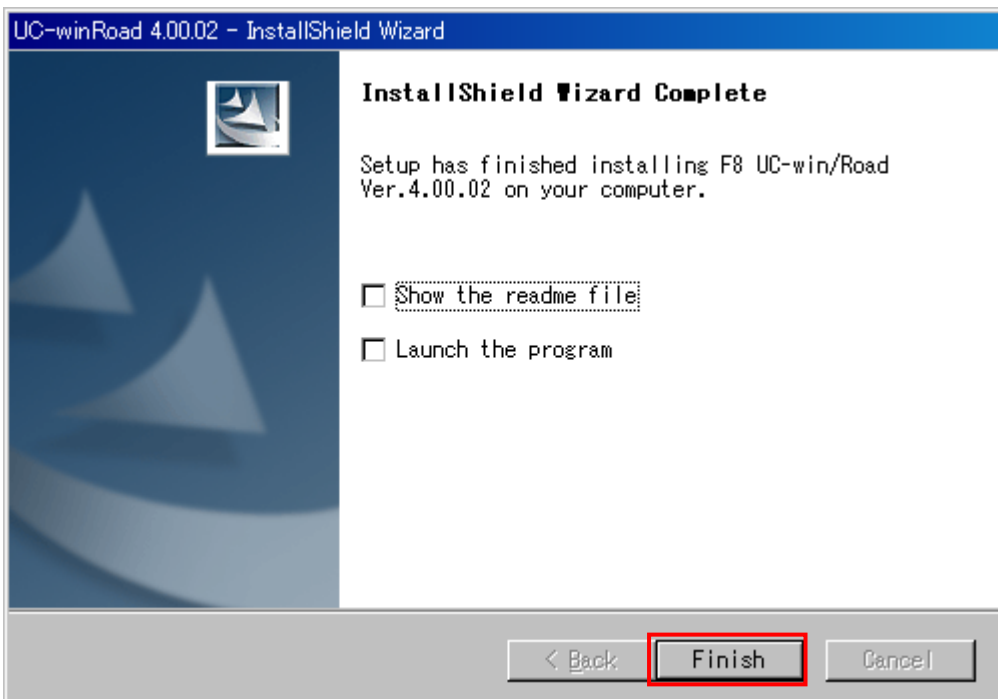
Click "OK".



Click "Enter".



Press "complete" to complete the setup.

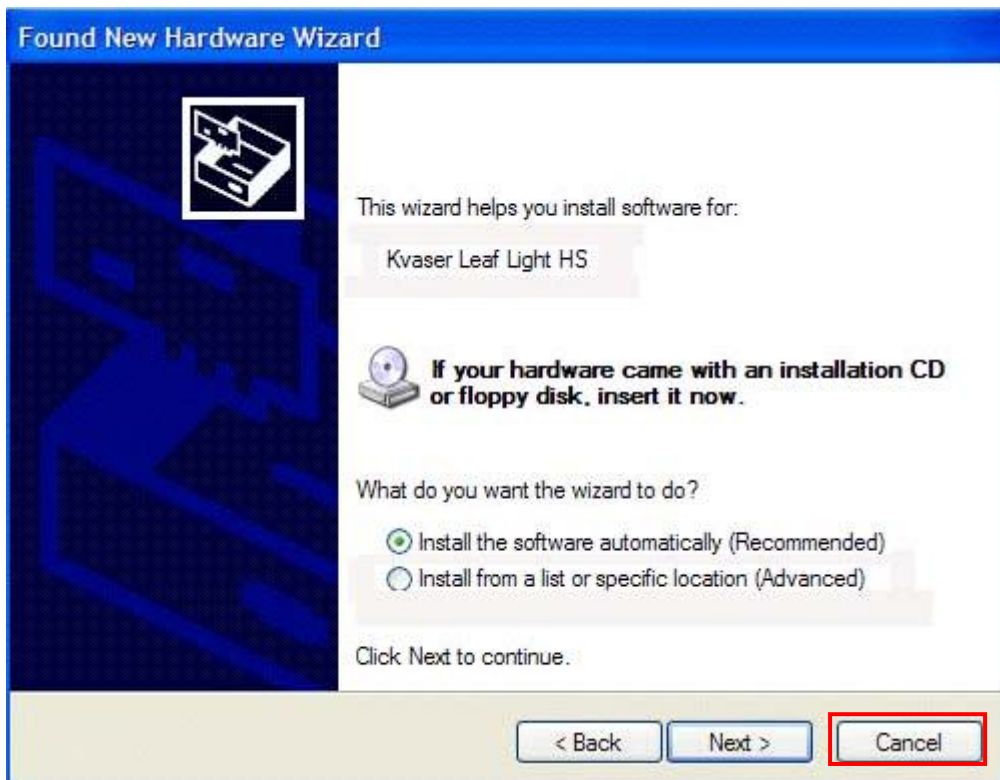


The process above completes the program setup.

5-2. Manual installation of Driving Simulator driver

If you insert Driving Simulator USB key to your PC before the setup in chapter 5-1. Windows “Found New Hardware Wizard” automatically starts. In this case, follow the instructions below.

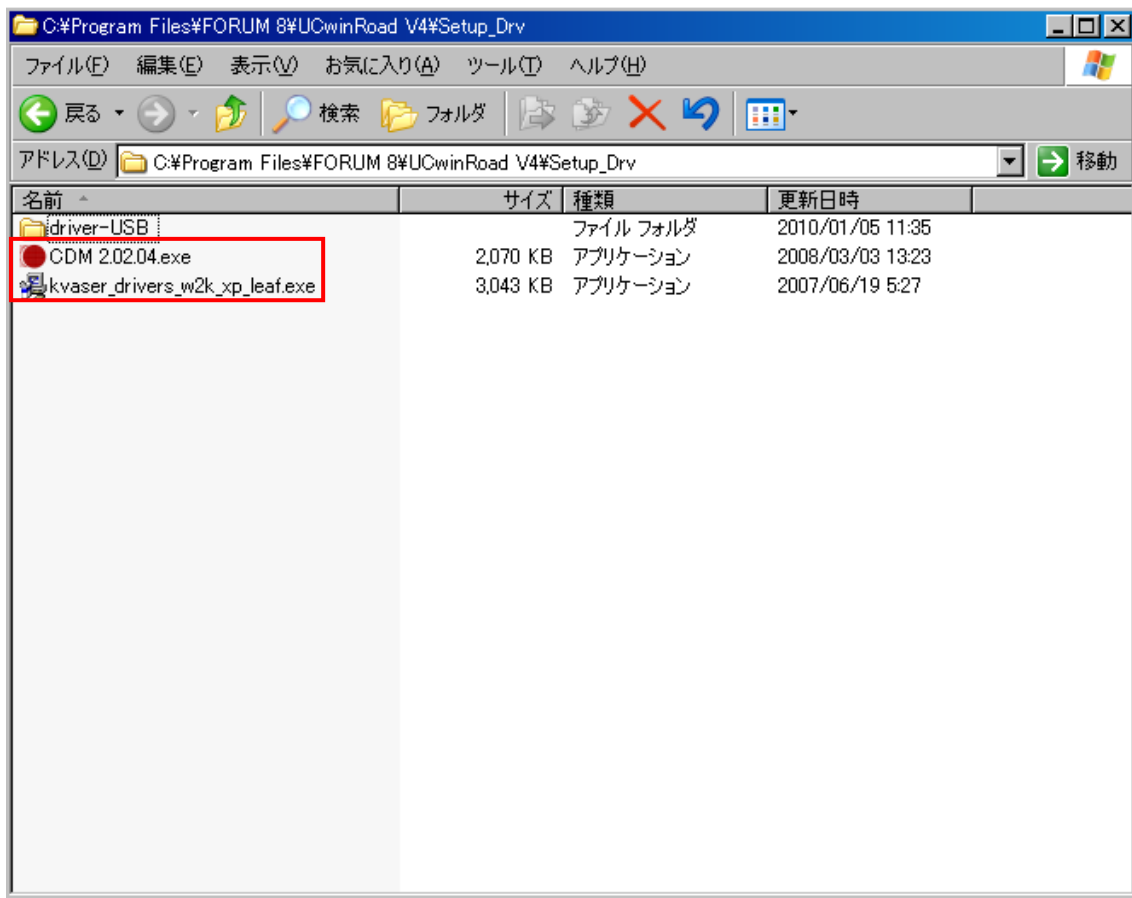
The system will ask you if you install Kvaser(kvaser_drivers_w2k_xp_leaf.exe) and Control Board(CDM 2.02.04.exe) driver. Select cancel to close the wizard.



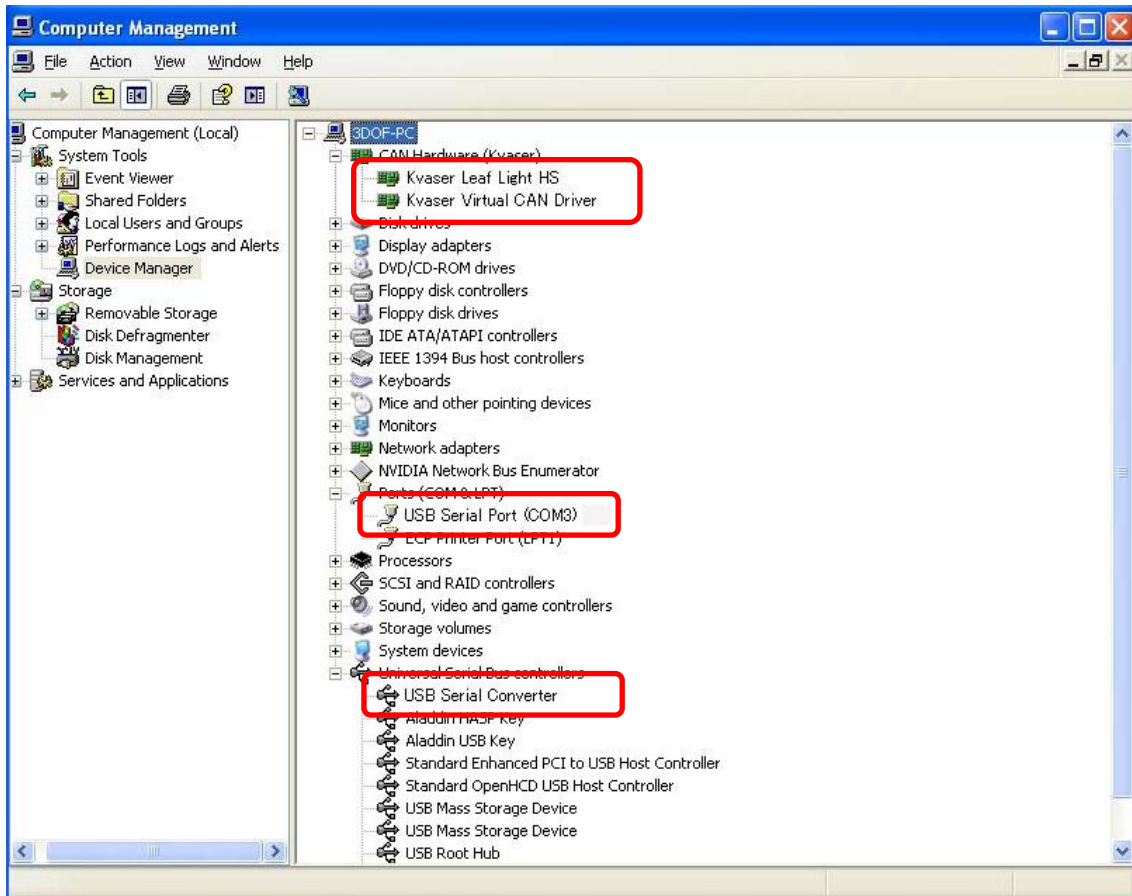
Double click each driver to continue installation.

“kvaser_drivers_w2k_xp_leaf.exe” , “CDM 2.02.04.exe” in “(local disk):¥Program Files¥Forum 8¥UcwinRoad V4¥Setup_Drv”

* see 5-1 Setup



If Computer Management Window shows as below when you have started the device manager, the program has been installed correctly.

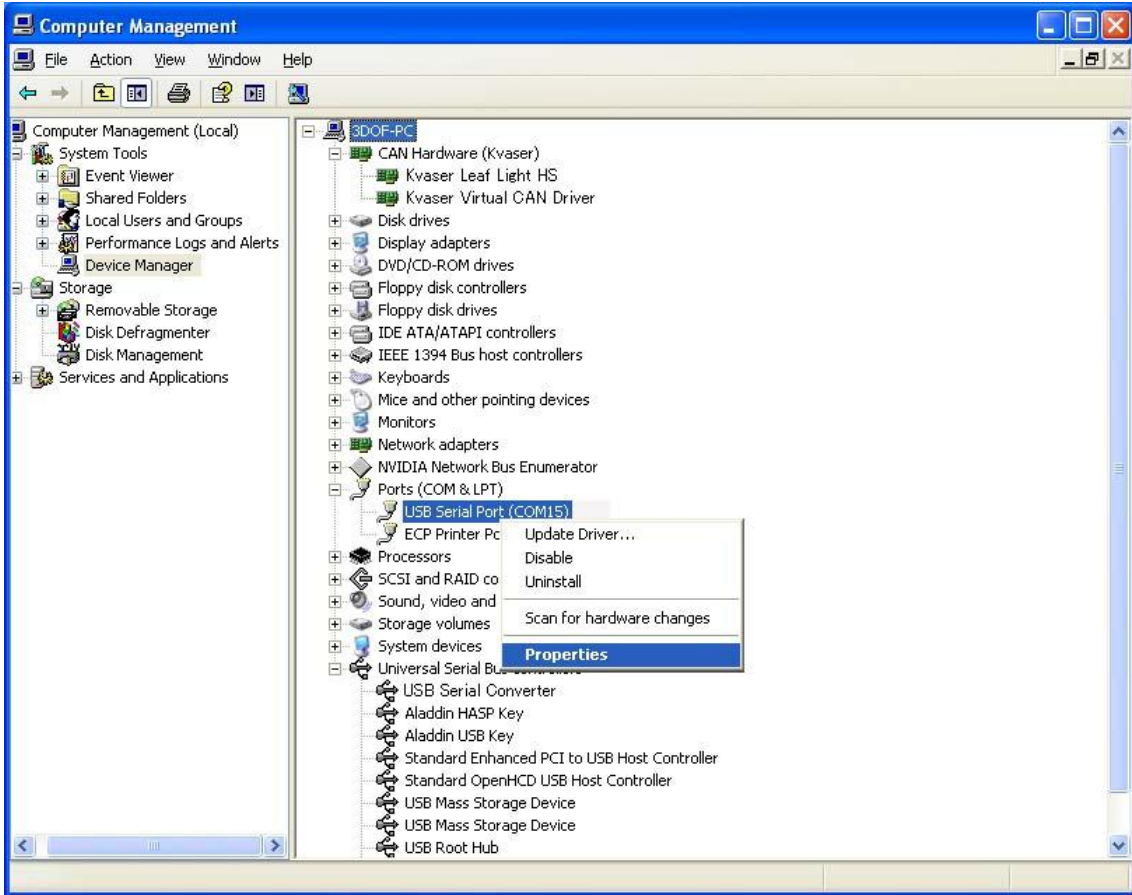


*Check COM port number

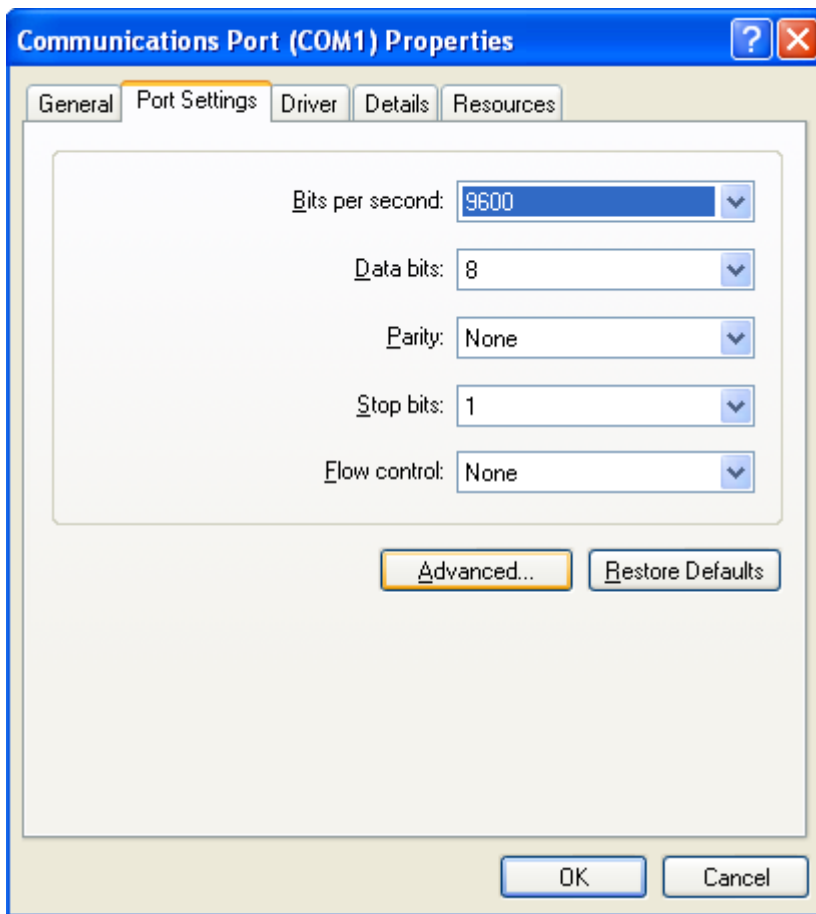
When the driver has been installed correctly, USB Serial Port (COM number) is added to port (COM and LPT) as above. If the COM number is over 9, you have to set the number below 9.

To set the number below 9, follow the steps below.

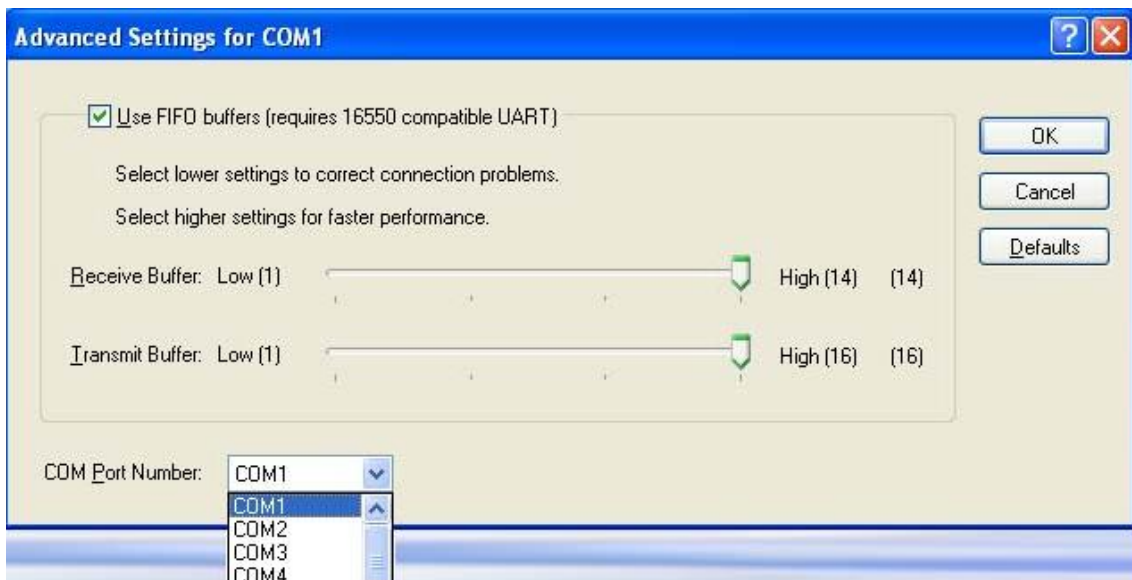
1. Right-click the USB port to open property.



2. Open Port Settings tab and click “Advanced...” button.



3. Set COM Port Number below 9 and choose the number which is not used. Set as below and click "OK" to complete the settings.



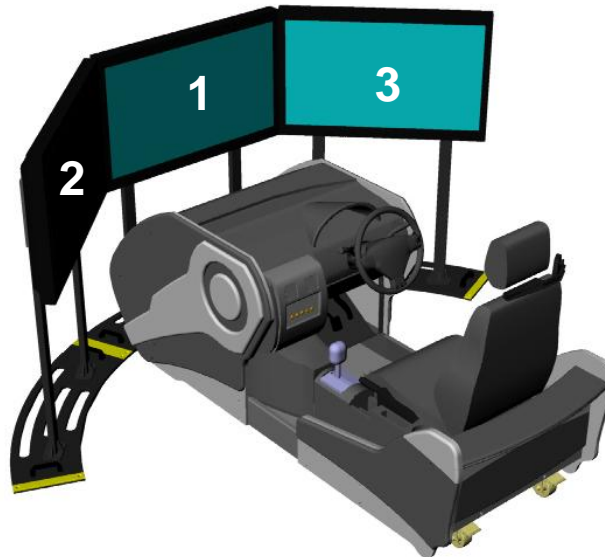
5-3. Update to UC-win/Road Customized Version

In the event that you purchased a customized version of UC-win/Road, you can perform an update by overwriting the differences in products version program.

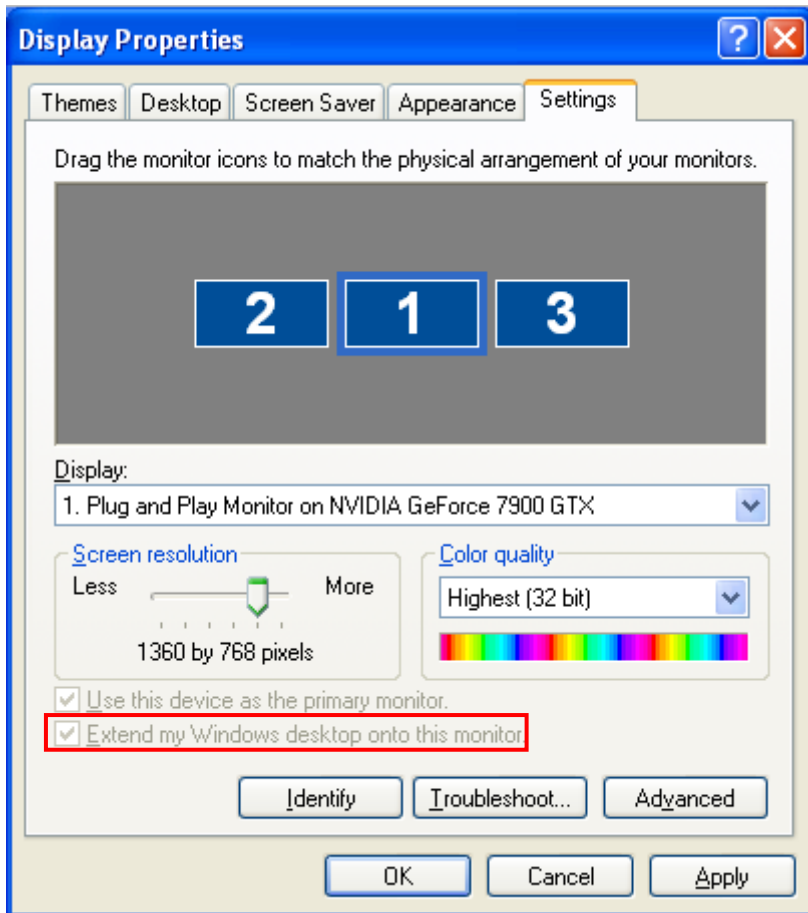
To do so, copy the plug-in for Driving Simulator to the program file to be installed. Next insert the customized program disk into the CD drive, and copy all the files in this CD, overwriting the file to be installed (root directory):¥UCwinRoad V4

6. Image Input/Output Setup

Adjust the positioning of the monitors before activating the program. For your reference, monitor 1-3 corresponds to the side mirrors and monitor 4 refers to the additional small sized monitor.



Select screen property, and then Settings tab. Click on each monitor icon and check "Extend my Windows desktop onto this monitor". (Please also check "Use this device as the primary monitor" for the first screen)Next, drag the monitor icon and setup the position in the order corresponding to the actual monitor position. (The positioning of a 4th screen is optional.)

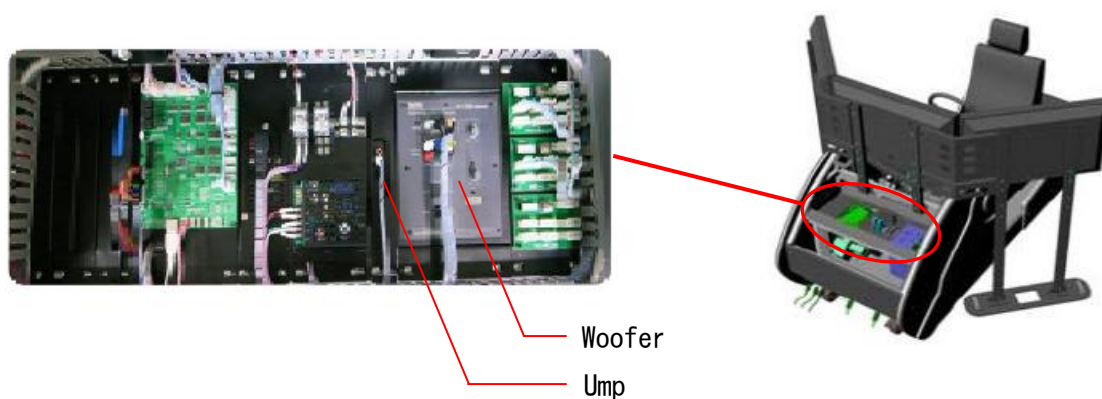


Please click "OK" to save the settings.

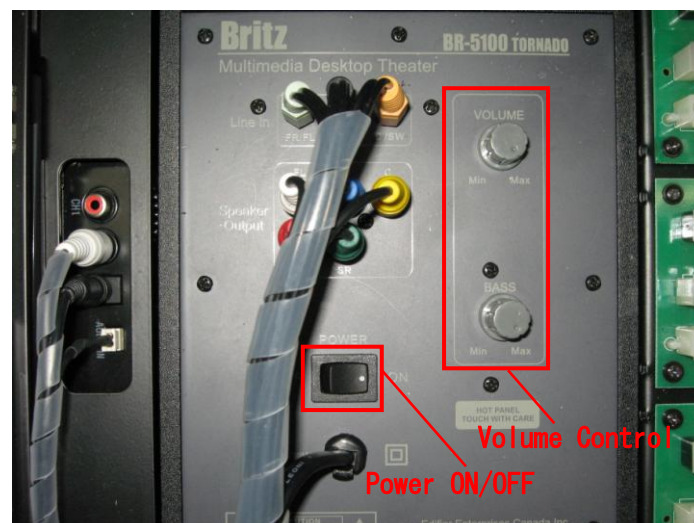
7. Sound/Vibration Volume Setup

In this chapter, we explain how to adjust the equipment's speaker volume and amp level.

The Woofer unit (below: woofer) is set on the right side of the interior of check panel on the backside of the equipment (See graphic below). The adjustment of the speaker, amp is operated by the volume knob of the woofer.



In case you adjust speaker volume, please use the knob written "VOLUME" on woofer. In case adjust amp volume level, use the knob written "BASS".*1 You can adjust the speaker volume on Windows, so we will suggest the volume of the equipment is fixed "Max", and the fixing in detail is operated on Windows.*2



*1) When you turn-on the power for the speakers, please adjust the volume slowly. Should you maximize the volume, it may potentially result in deafness.

*2) Please refer to the PC hardware reseller for volume control.

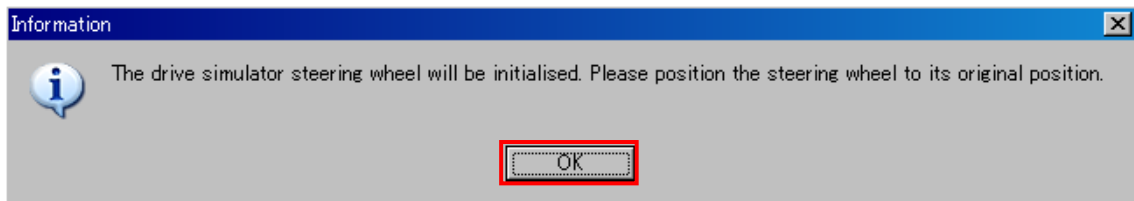
8. UC-win/Road Activation and Run

In this chapter, we explain how to setup UC-win/Road Driving Simulator and how to use it.

8-1. Program Activation

Activate UC-win/Road. Execute “start” >> “all programs” >> “ | FORUM 8 | UC-win Road Ver. x.xx.xx | UC-win Road Ver. x.xx.xx.”

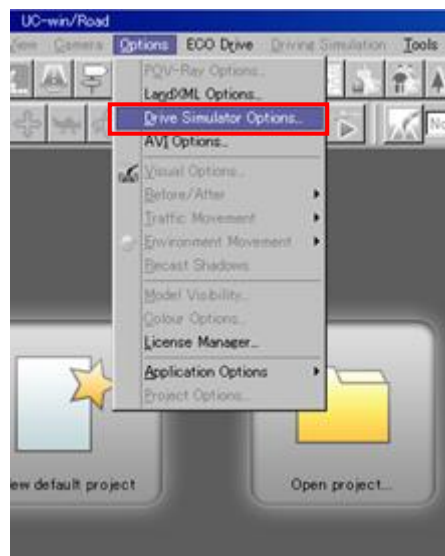
The following message is displayed in reading plug-in. The formatting of the steering position is started by clicking “OK”.



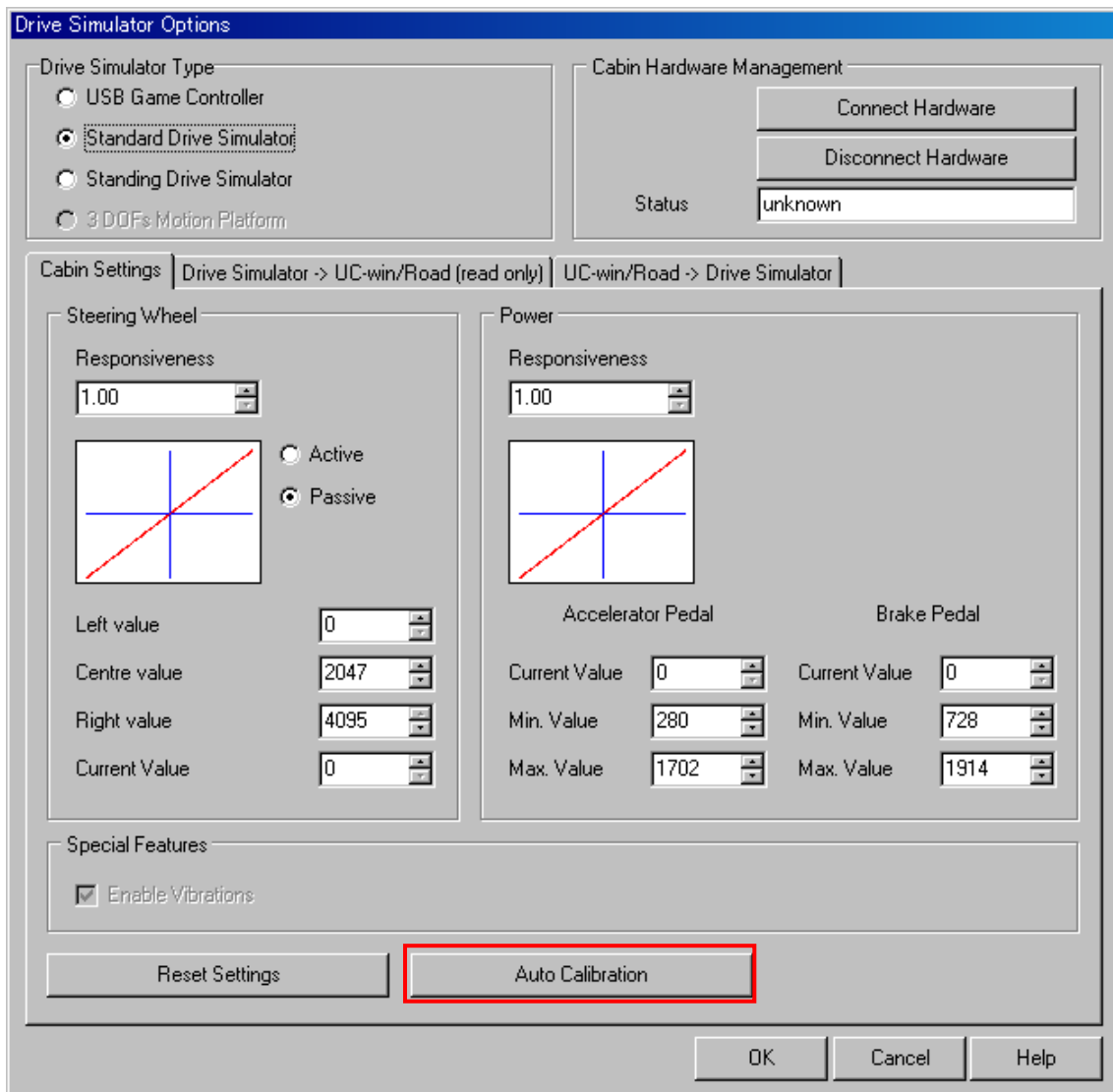
8-2. Driving Simulator Default

Store the specifications of the USB signal control hardware of the equipment in this program. Click [File | Options | Drive Simulator Options...] on the menu.

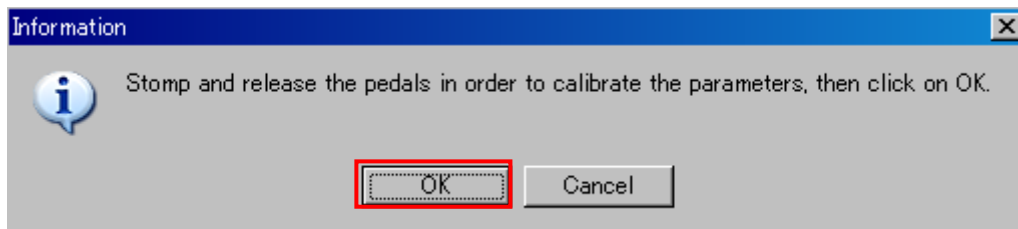
***)This operation is only for first time activation. In next time, this operation isn' t needed.**



Open the "Settings" tab of setting screen, then click "Auto Calibration" button.



The following message is displayed. Press down and release the accelerator pedal and the break pedal during it display. After repeating this operation, click "OK".



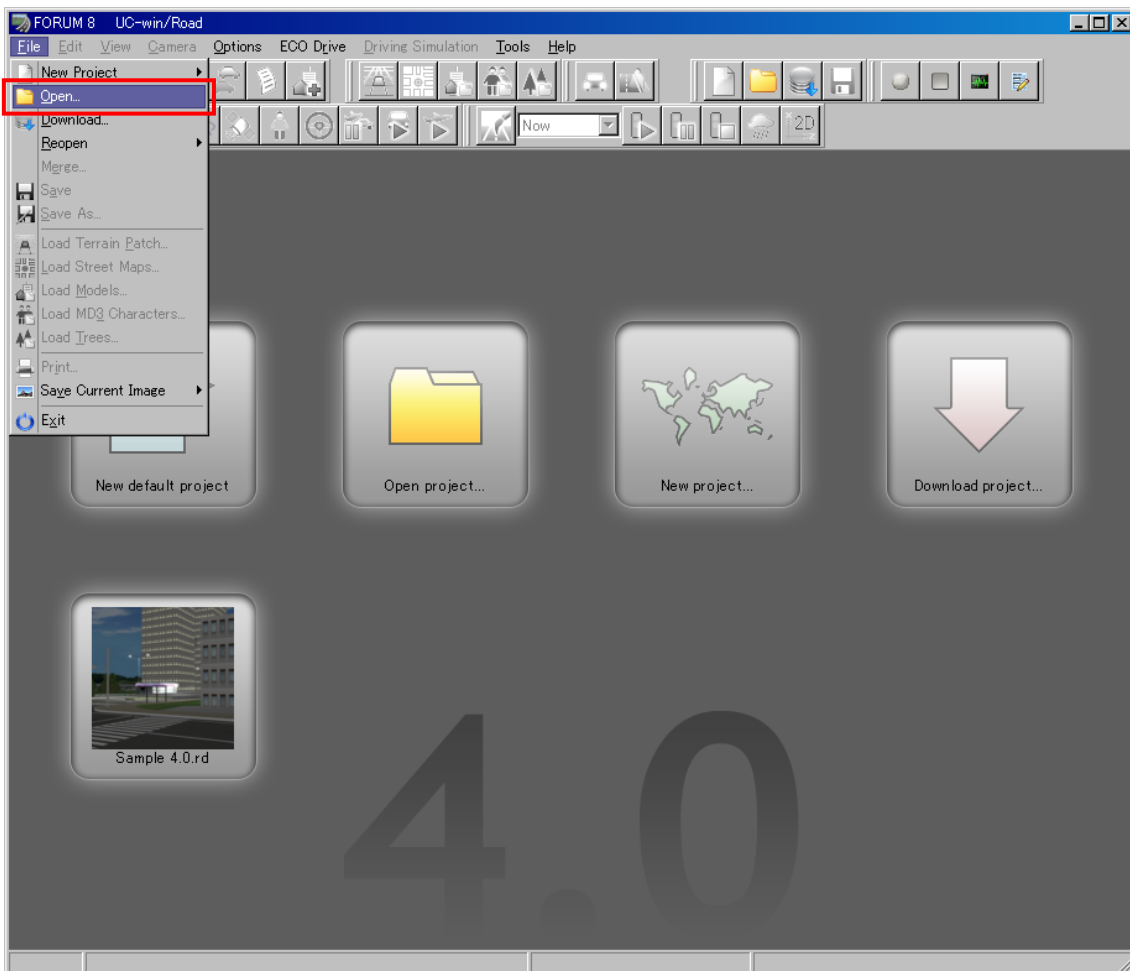
The system closes the message and go back to setting window. Now you can see the setting value for "current value", "minimum value" and "maximum value" of each pedal

is shown. Click “OK” to close the settings.

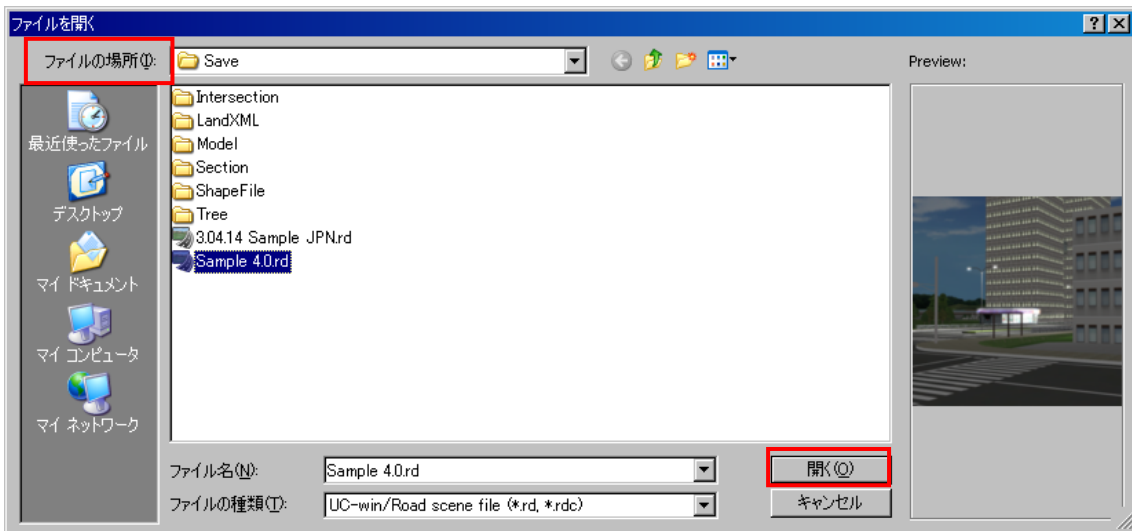
Accelerator Pedal		Brake Pedal	
Current Value	<input type="text" value="0"/>	Current Value	<input type="text" value="0"/>
Min. Value	<input type="text" value="280"/>	Min. Value	<input type="text" value="728"/>
Max. Value	<input type="text" value="1702"/>	Max. Value	<input type="text" value="1914"/>

8-3. Data Reading

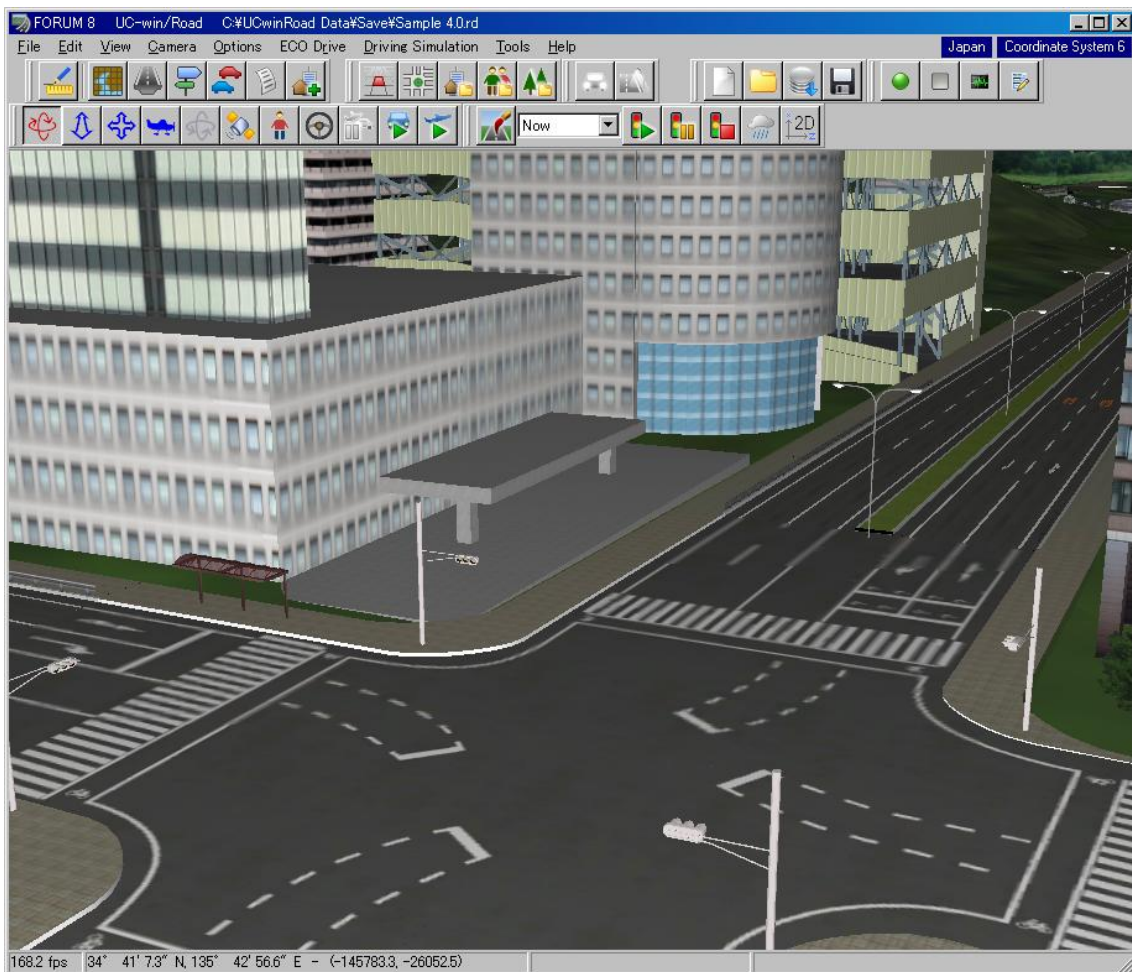
When program activation complete, the data will be read by clicking [File | Open] on the Menu.



“File open” dialogue appears. Set the file location “(local disk):¥UcwinRoad Data ¥Save” and sample data is shown. Select the data and click “OK” and data is being read.



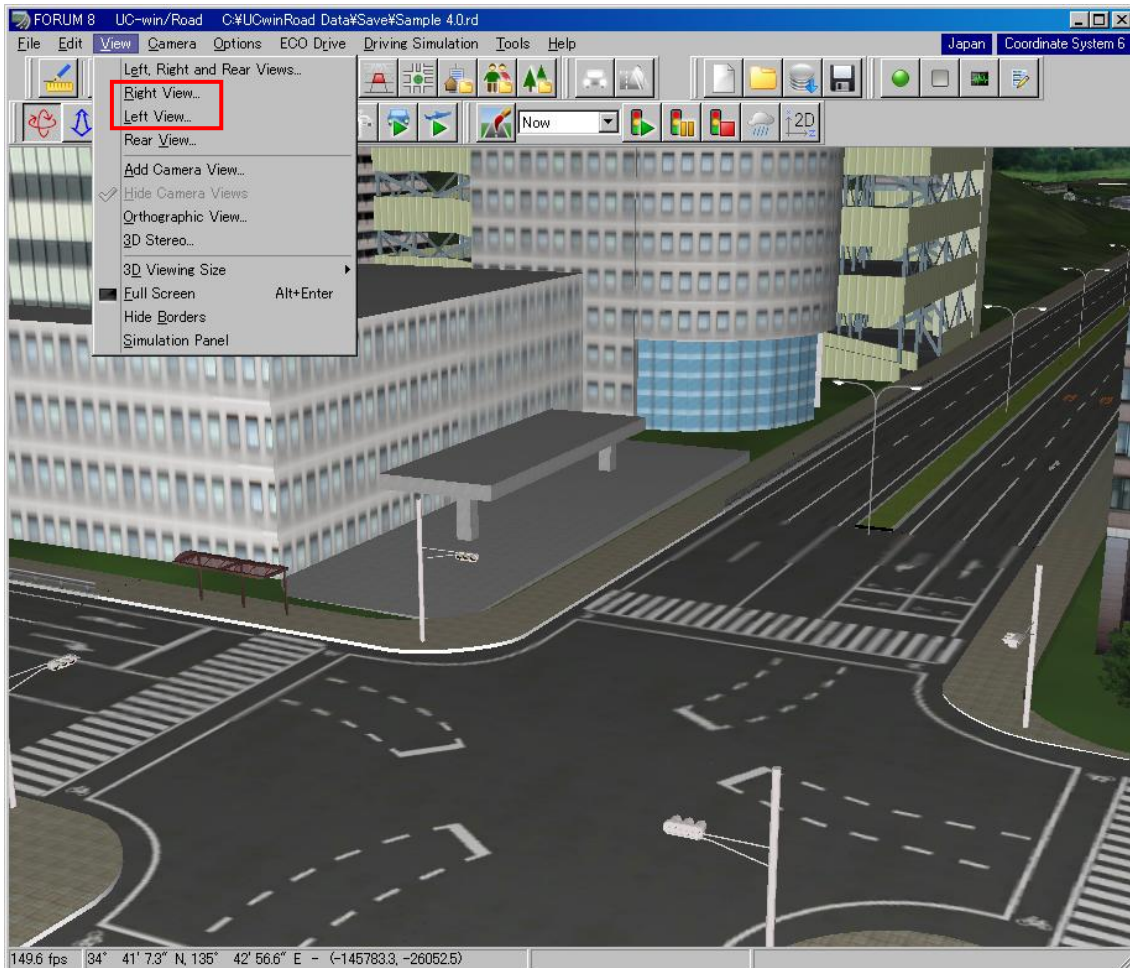
When the data is read, data is shown as below.



8-4. Multiple Screen Display

Set 3 ch monitors. Check Menu “right view” and “left view” on “view” pull down menu.

***)Perform the above operation after exiting full-screen display(Max).**



When “right view” and “left view” is on the screen, set the 1st monitor to full screen mode. (“right view” and “left view” windows become full screen at the same time.



8-5. Switching to full-screen display(Only for Customized version)

If you want to hide menu screen of the program, you can switch to full-screen mode by either of these operations.

- Enter "Alt + Enter" key under center screen active.
- Right-click the central screen, select and check "Full Screen" from pop-up menu.
- Select and check [View | Full Screen] in the menu.



Full Screen : Unchecked

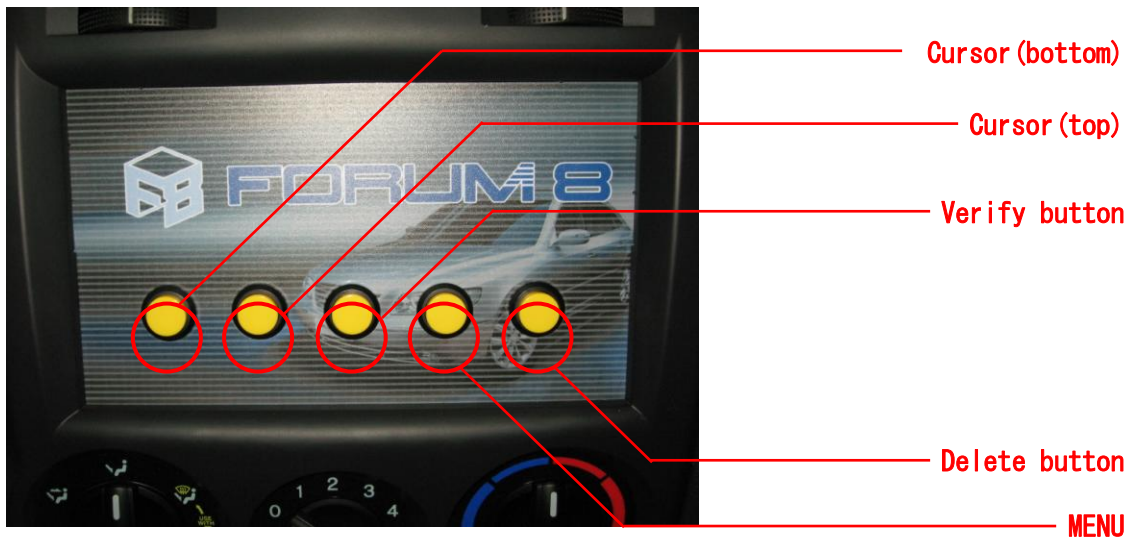


Full Screen : Checked

If you want to exit the full-screen mode and re-display the menu screen, perform any of the above operations, uncheck "Full Screen" and the settings will be canceled.

8-6. Scenario Mode (Only for Customized Version)

We will explain the selection of scenario mode and the procedure of performance. In driving, The operation is worked by 5 user buttons on the center console of the equipment in driving. In this program, the buttons are disposed as below.



Push "Menu" button, call the menu screen. Then the screen as below is displayed.



Detail of each simulation mode is as below.

- **Story mode**
You can drive the vehicle along the driving routes set up for each scenario. For each scenario, it is possible to set-up the timing for events.
- **Free Driving**
You can freely select driving route without any saved case scenarios.

When you select "Story Mode" in driving mode, the screen allows you to select different case scenarios. Select a button to choose a driving scenario. The scenario mode driving begins after the "Verify" button is pushed.



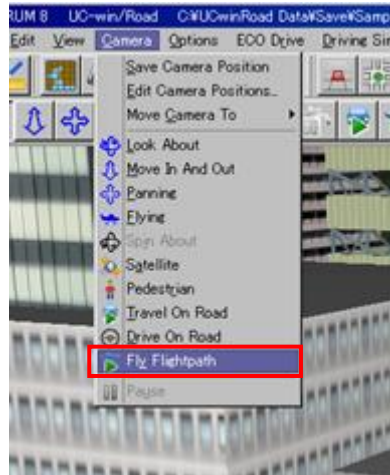
If you select "Free Driving" in driving mode, the screen to select driving route is displayed. Select a road with up-and-down button, the driving on free mode starts by clicking "Verify" button.



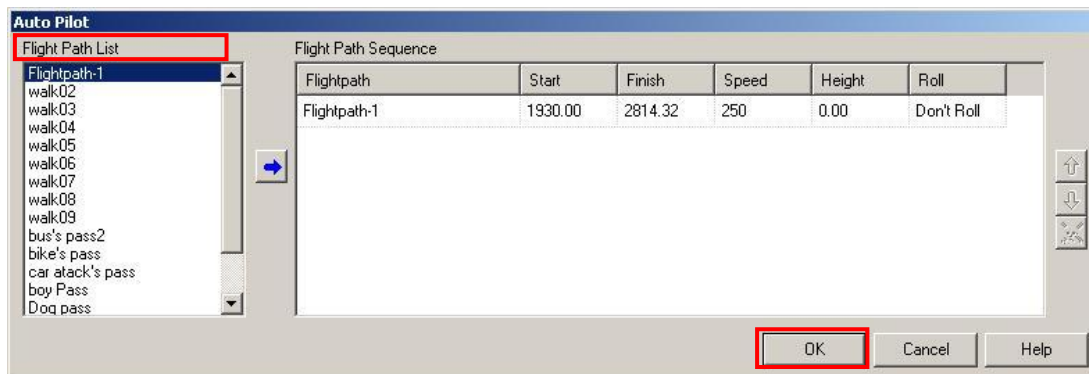
8-7. Flight Path

This operation is used for exhibition and not for driving simulation. In the event of prolonged usage, we suggest you disable both the Windows screen saver*¹ and monitor power saving function.*²

Click [Camera | Fly Flight Path] on the Menu.



"Auto Pilot" select screen is displayed. Select the scenario (Flight path) on "Flight Path List", then click "OK" button.



Flight path starts.

*1) Screen saver : The Windows function which displays animation or image during PC isn' t used for a certain period. Please ask Microsoft Corporation about the detail of screen saver.

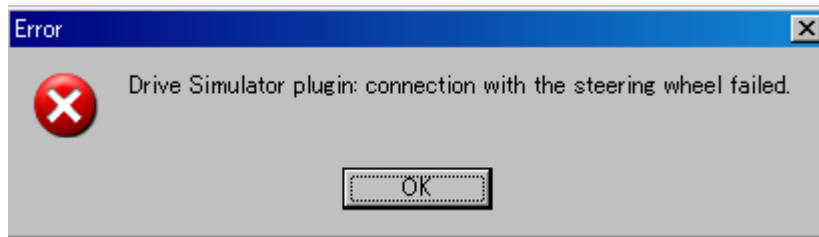
*2) Please refer to Microsoft Corporation or your PC manufacturer for instructions on how to setup your screen saver and monitor power saving functions.

9. Troubleshooting

The following is a list of solutions for commonly occurring problems.

P1. An error message is displayed when the program is activated.

If the following error message is displayed during program activation, USB for the steering device might not be recognized by your computer.

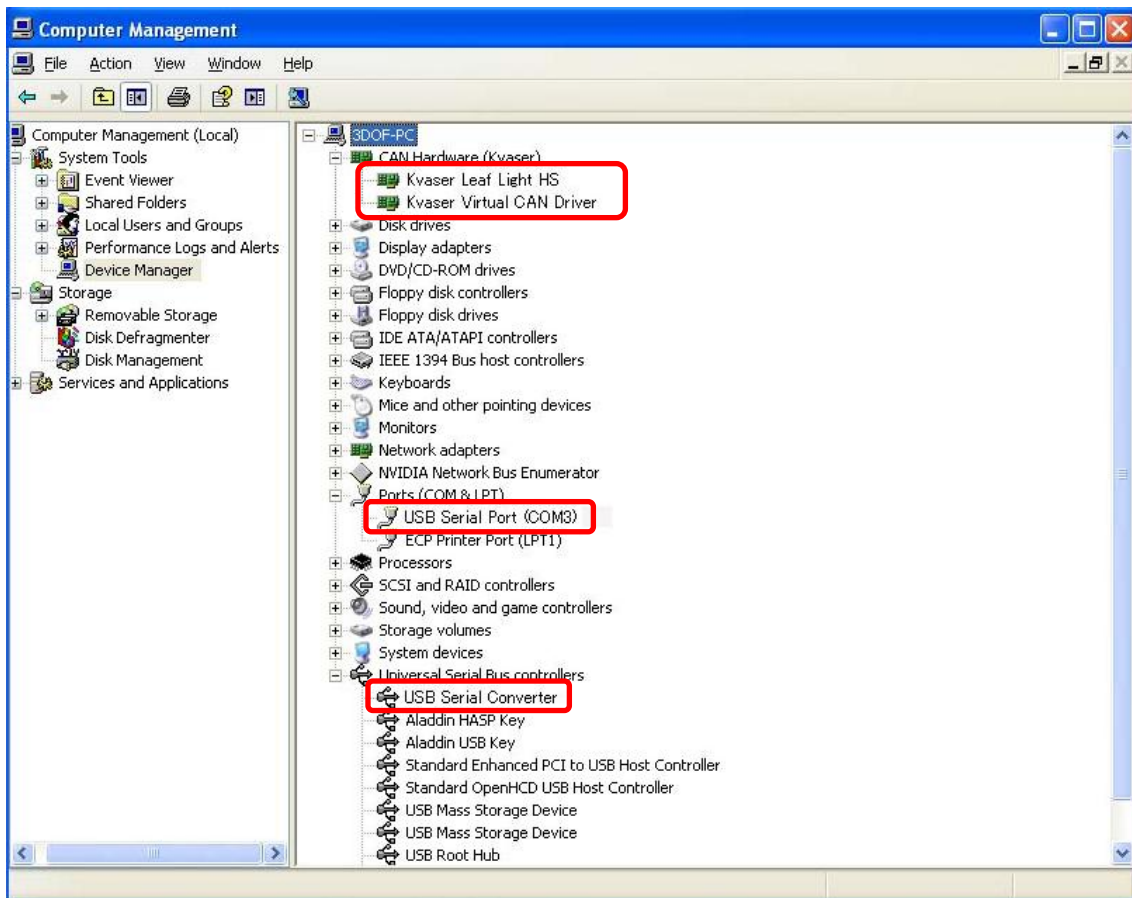


In this case please try the following:

- Check if the equipment and your PC are properly connected by the USB cable.
- Check if the USB device driver is correctly installed.
- Push the reset button on the equipment and re-connect the cable.

< Device driver check procedure >

By seeing device manager, you can check if the USB device driver has been installed correctly. Start the device manager.



Check if the driver which is enclosed by () is shown below each device.

If it not shown, it indicates that USB device is not recognized. In these cases, insert USB once again or insert the USB device to another port.

If “Kvaser Leaf Light HS”, “Kvaser Virtual CAN Driver”, “USB Serial Converter” and “USB Serial Port(COM number)” is shown in “CAN Hardware(Kvaser) and error message like “?” is not shown beside icons, installation of the drivers is completed correctly. If “?” is shown beside icons, driver has not been installed correctly. Set up the driver once again. See “5. Driver Installation” for the process of driver installation.

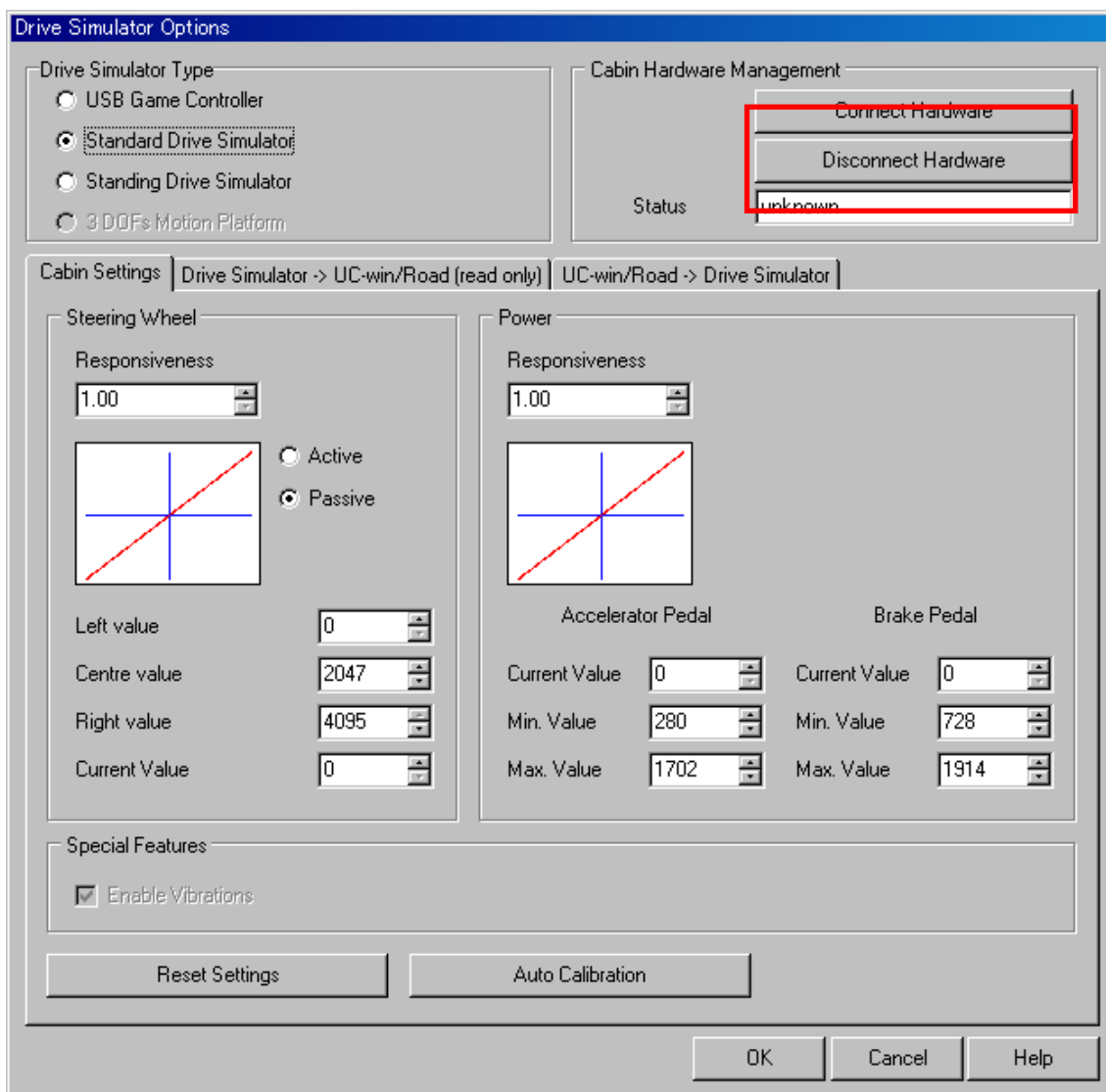
P2. In case you can not drive. (steering wheel or pedal does not work)

When steering wheel or pedal does not work while working with the program, try the followings.

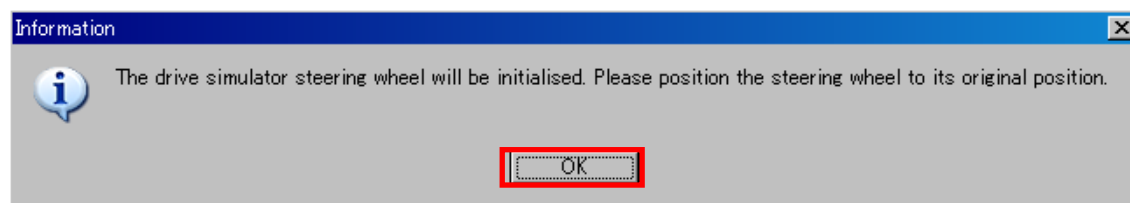
In case steering wheel does not work

Press reset button of the simulator and click [option | Driving Simulator option] of

menu to open option menu of the Driving Simulator. Press the button “Disconnect Hardware” and next, “Connect Hardware” of option menu.



After steering format message is displayed, then push “OK” button.

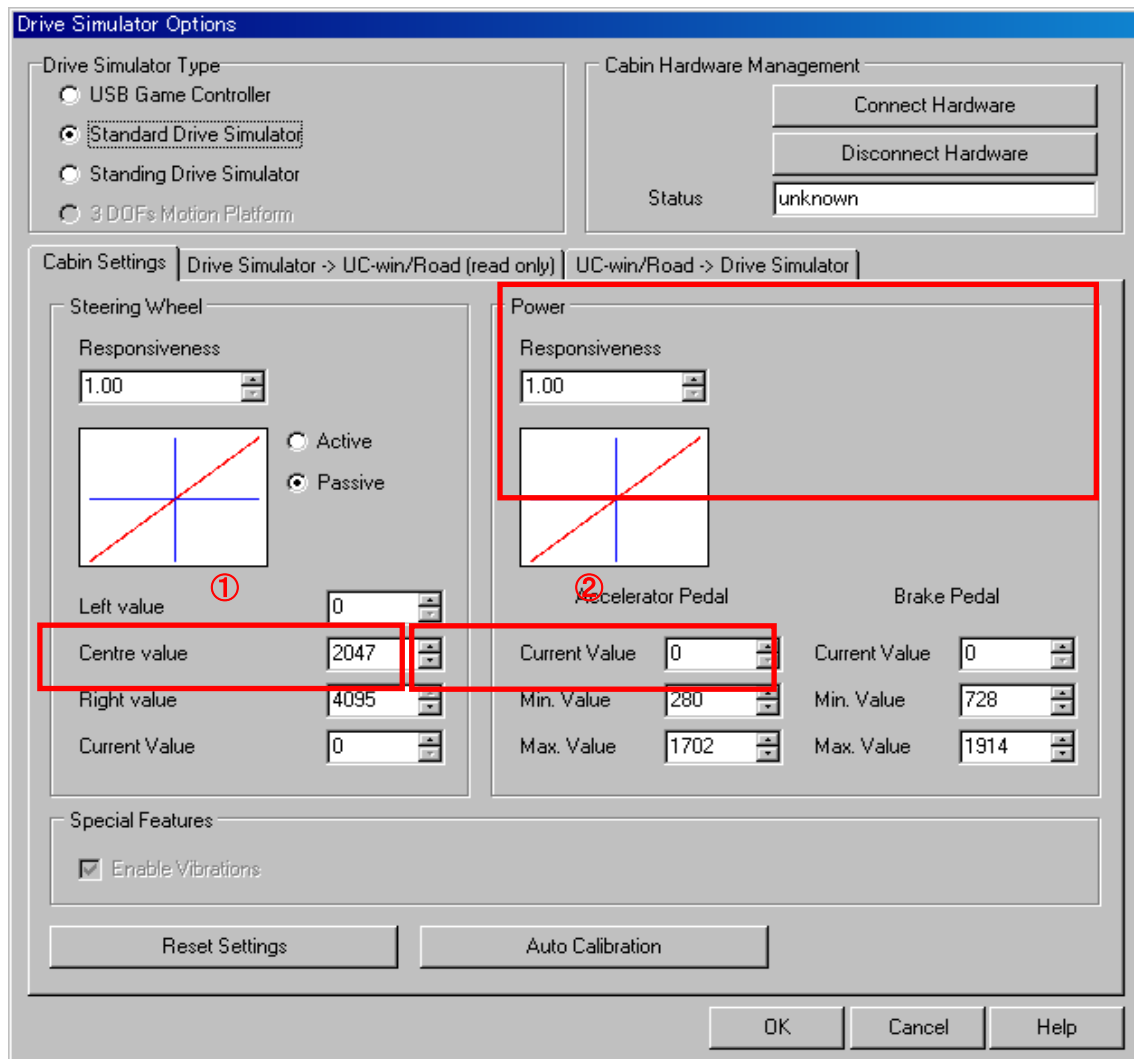


The steering wheel returns to default.

If the steering wheel is initialized correctly, status becomes “normal”.

If the pedal does not work:

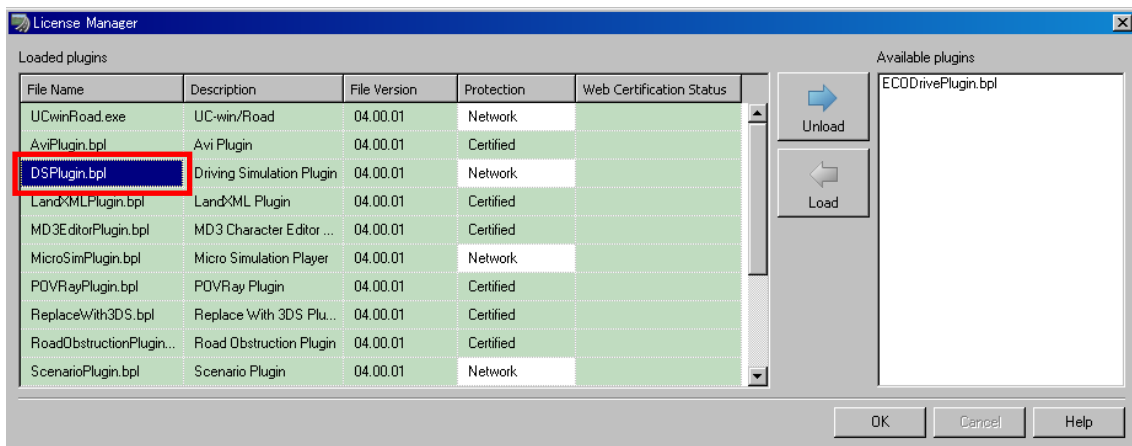
Press reset button of the simulator and click [option | Driving Simulator option] of menu to open option menu of the Driving Simulator. Values of accelerator pedal and Brake pedal might be set “0”. In this case, press “Reset settings” and then “Auto Calibration” and press down accelerator pedal and brake pedal once. Then press “OK” button to go back to main screen and press the pedals again.



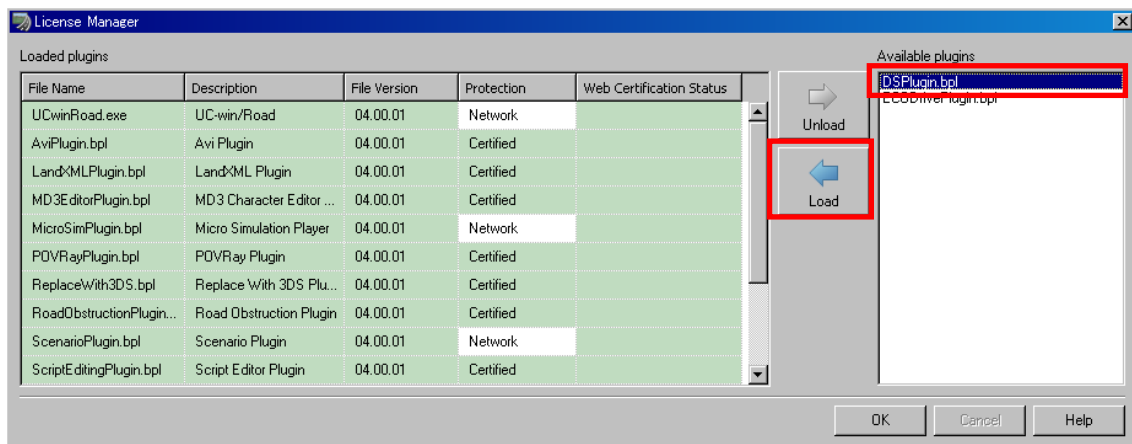
P3. Initial message of steering wheel is not shown

The message is not shown and steering position has not been initialized, “DSPlugin.bpl” might not have been read. Try the followings.

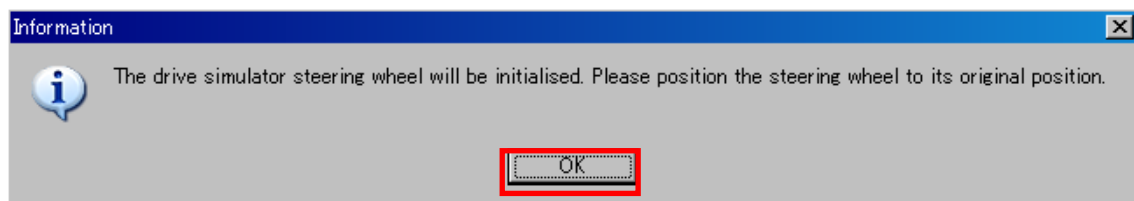
Click [Option | License manager] of Program. License manager is displayed.



Check if "DS Plug in.bpl" is shown among the loaded plug-ins in the left rows. If the plug-in is not in the list, select "DSPlugin.bpl" from right and click "load" .



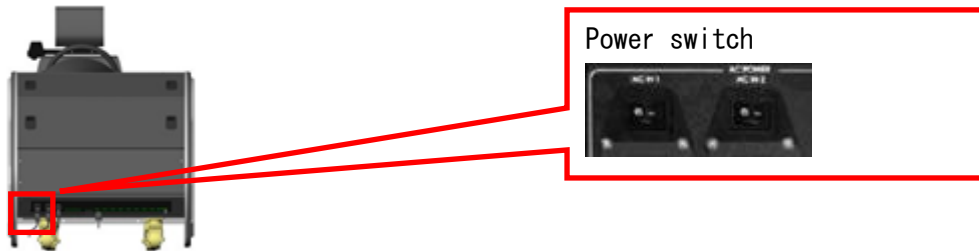
When the plug-in is loaded, the message below is shown. Press "OK" and initialization of "steering wheel" begins.



P4. Though devices and plug-ins are recognized correctly, initialization does not work correctly at the time of startup.

Turn off the power switch once and try again.

There are 2 power switches to the simulator as shown below.




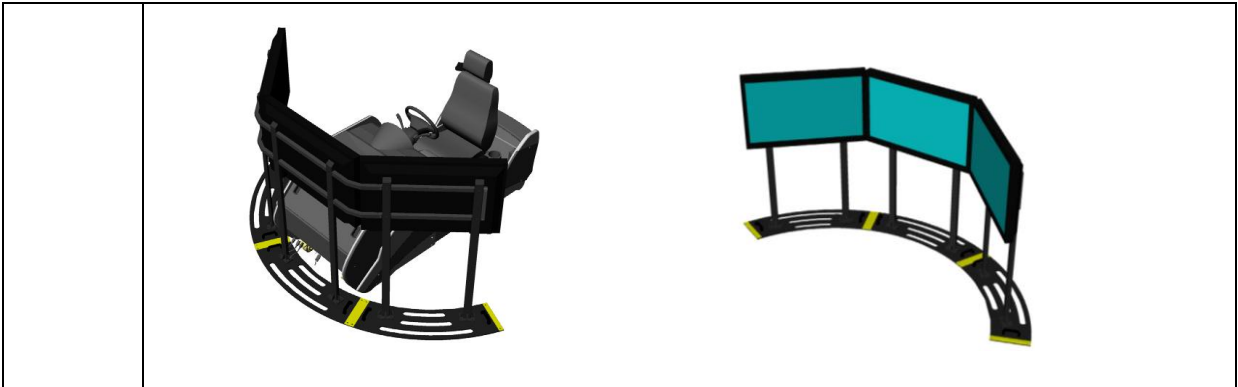
If the situation does not change after you have turned on the power again, the electric power is not enough for the simulator. Check if the room has enough capacity for the simulator. For power minimum requirement, see “Hardware Specifications” .

10. Hardware Specifications

Driving Simulator Specifications

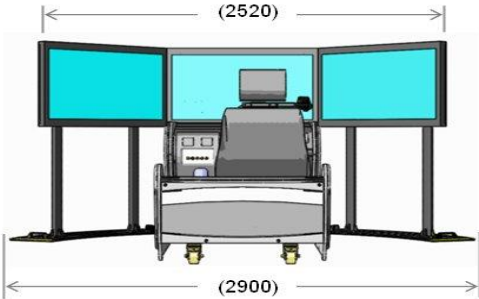
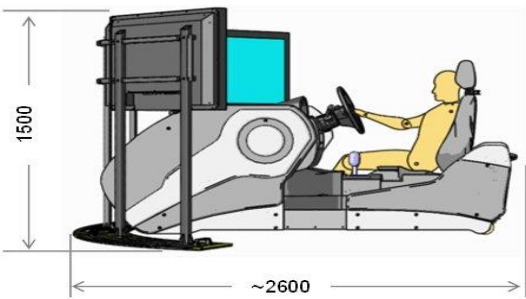
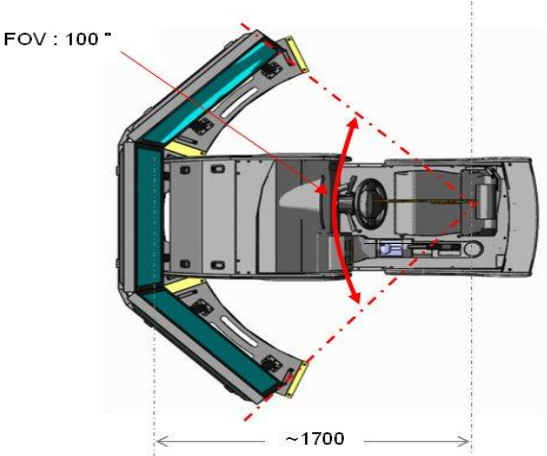
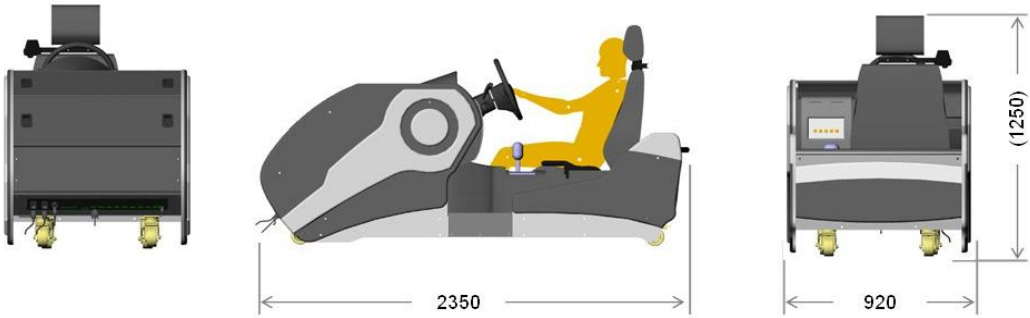
model	i-Drive (PR-R-PW-AT-100)		
本体	Physical dimensions	Dimensions (L x D x H)	2344mm x 920mm x 1250mm
		Space requirement	3000mm x 2500mm x 1800mm
		Weight	280Kg
	Power supply		AC 100V 50hz 1000w
	Environment requirement*2		0°C ~ 35°C
	Standard		CE
	MDAQ	Interface	USB 2.0 / RS-232C*1
		OS	Window*3 XP
		Power supply	DC 12V Computer Power Acceptable
		Input /Output	Analog Input 4Ch / Output 6Ch
	Digital Input 32CH / Output 7CH		
	Power distribution board(Fuse)		AC 100V 8A
	DC power supply		DC 12V
	Audio amplifier	Output	Max 2000W
		Power supply	AC 100V 50/60Hz 30W
		Channel	5 Channels (Center: Vibration)
	Vibration amplifier	Power	Max 36W(18W x 2)
		Power supply	DC 12V
		Channels	2 Channels (Front / Rear)
		Frequency	10Hz~80Hz
	Sensor	Steering sensor	Potentiometer 1 kΩ
		Accelerator pedal sensor	Potentiometer 1 kΩ
		Brake pedal sensor	Potentiometer 1 kΩ
User defined function buttons	User defined Push Button—"push-to-make" type x 5		
User connection board	Power	AC Power (max. 8A) x2	
	Power supply	AC power supply(max. 5A) x1	
	USB. HUB	USB HUB(Optional)	

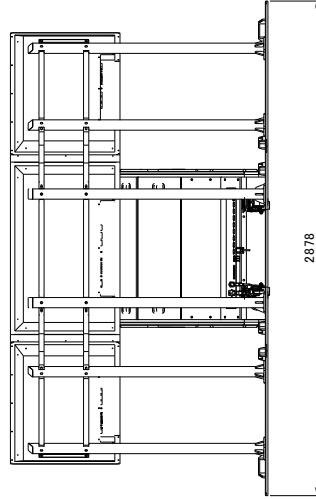
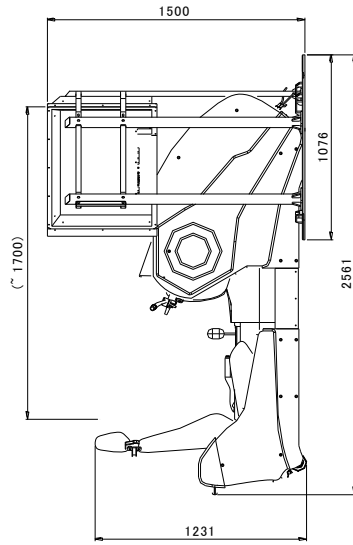
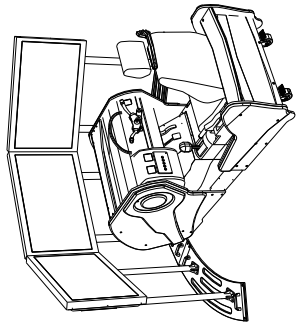
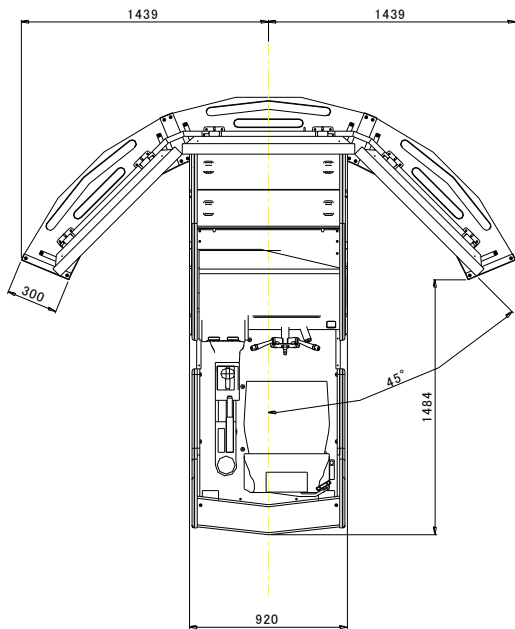
		Audio Port	Stereo Φ 3.5 x 3	
		VGA Port	D-sub 15Pin Female x 3	
		Serial Port	D-sub 9 Pin Female x 5	
		LAN	RJ45 x 1	
		USB Port	Type A x 4	
	Vehicle	Type	Small LH	
		Steering	Active	
		Pedal	Brake / Accelerator	
		Gear	Automatic	
				
	Monitor	Physical dimensions	Model	42Inch LCD
			Resolution	1920 x 1200
			Input Signal port	D-sub 15 Pin x 1
DVI x 1				
Menu adjustment			Remote Controller	
Dimensions(L x D x H)			1004mm x 104mm x 638mm	
Space requirement			1500mm x 2500mm x 1700mm	
Weight		30Kg		
Power requirement		AC 100V 50hz 1000w		
Temperature specifications*2		0°C~35°C		
Standard	CE			



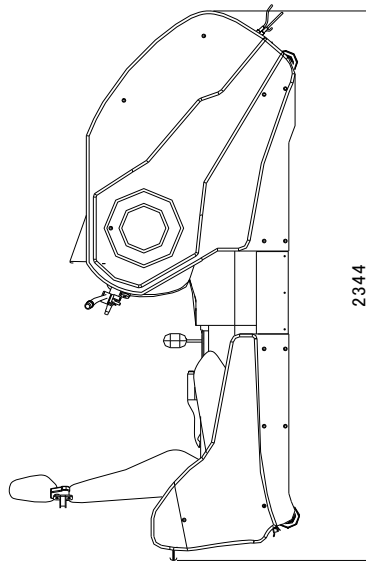
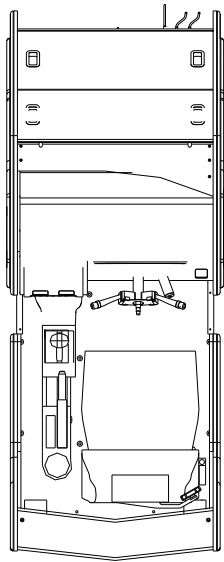
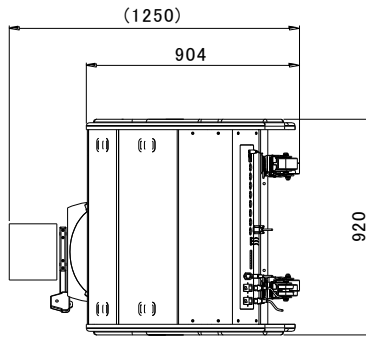
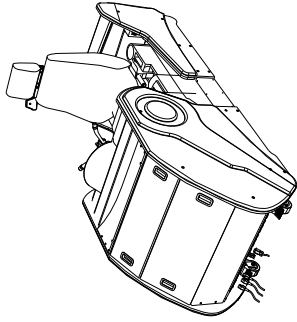
-
- *1) Some ports can not be used because it is not connected internally.
 - *2) In addition to environment requirement, condensation must be avoided,
 - *3) Windows is a registered trade mark of Microsoft Corporation
-

11. Dimensions and drawings

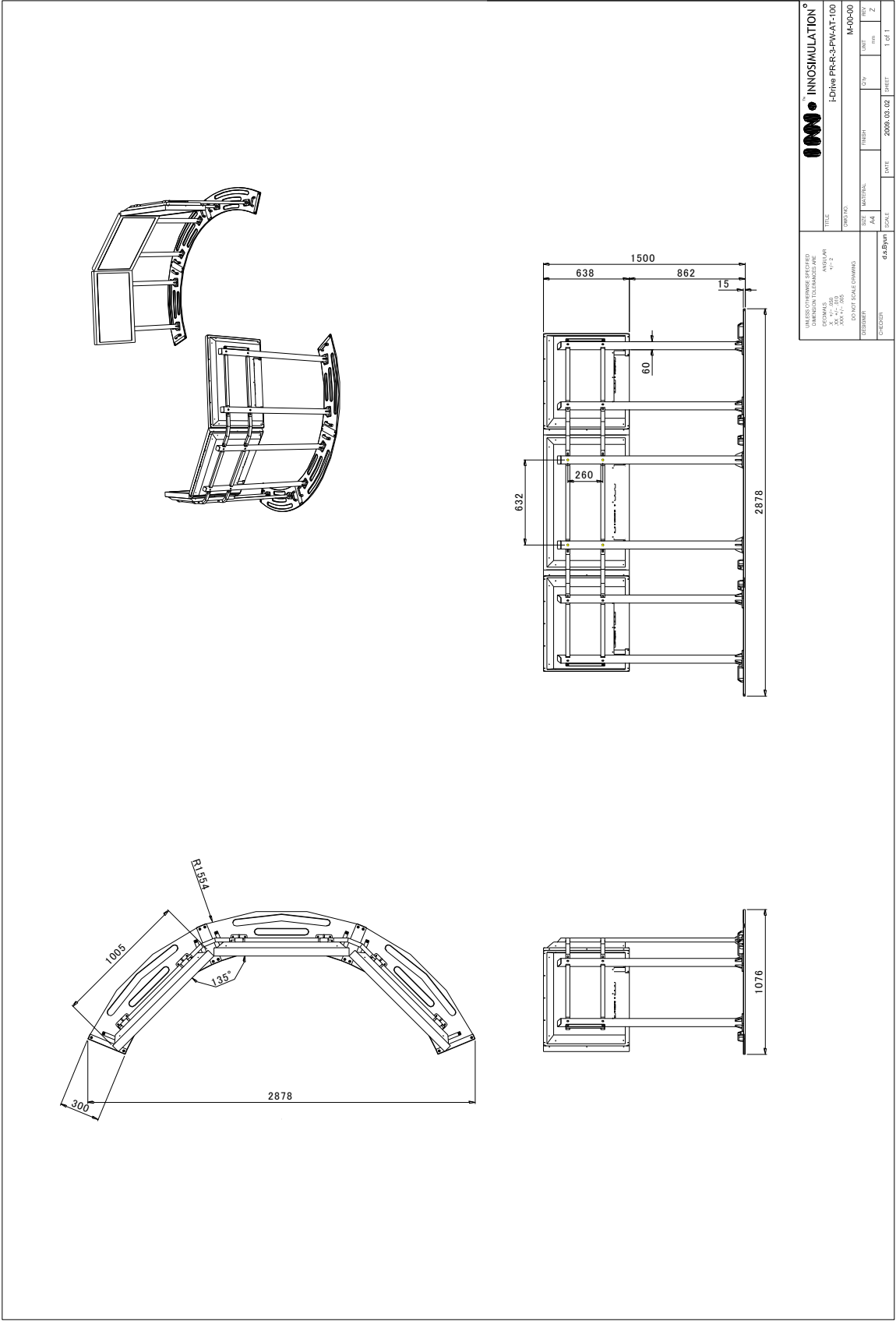




UNIVERSITÄT DUISBURG TECHNISCHE HOCHSCHULE ANSCHULZ 41224 ESKEN 235 111 100 235 111 200 UNIVERSITÄT DUISBURG TECHNISCHE HOCHSCHULE		INNOSIMULATION® i-Drive PRR-3-PWAT-100 ASY-00-00	
DATE	2009.03.02	REV	1
DESIGNER	d.s.Bryan	SCALE	1:1
SIZE	A4	UNIT	mm
NO. OF SHEETS	019	TOTAL	2
DATE: 2009.03.02 SHEET: 1 of 1			

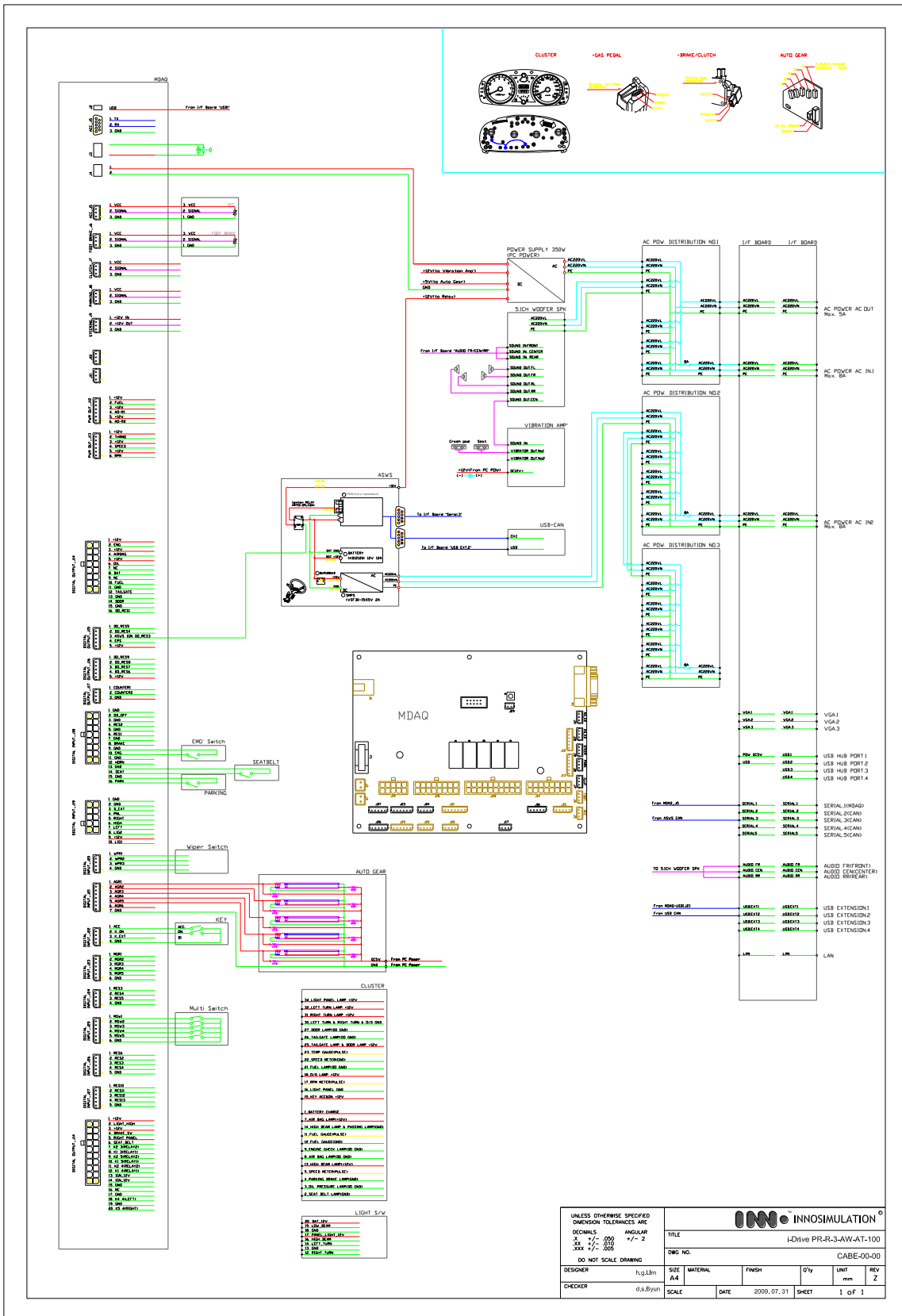


DIMENSIONS SHOWN UNLESS SPECIFIED DIMENSIONS TO UNLESS ARE UNLESS OTHERWISE SPECIFIED UNLESS OTHERWISE SPECIFIED UNLESS OTHERWISE SPECIFIED		INNOSIMULATION® H-1000 PR-RS-FP-WAT-100	TITLE H-1000 PR-RS-FP-WAT-100
SIZE 1/4" = 1'-0"	SCALE 4x 8/11		DATE 2008.03.02
DESIGNER CHENIERE	MATERIAL STEEL	FINISH POLYURETHANE	UNIT CMH-00-00



<p>UNLESS OTHERWISE SPECIFIED, DIMENSIONS (UNLESS INDICATED) ARE IN MILLIMETERS 1:50, 1:100, 1:200, 1:400, 1:800, 1:1600, 1:3200 DO NOT SCALE DIMENSIONS</p>		<p>INNOVOLUTION® I-Drive FR-R-3-PW-AT-100</p>	
<p>PROJECT NO.:</p>	<p>DATE:</p>	<p>REV.:</p>	<p>DATE:</p>
<p>SCALE:</p>	<p>MATERIAL:</p>	<p>FINISH:</p>	<p>UNIT:</p>
<p>DESIGNER:</p>	<p>DATE:</p>	<p>2008.03.02</p>	<p>SHEET</p>
<p>4x8.8mm</p>	<p>1 OF 1</p>	<p>1</p>	<p>2</p>

12. Driving Simulator Circuit Structure Diagram



UNLESS OTHERWISE SPECIFIED DIMENSION TOLERANCES ARE:		INNO SIMULATION	
DECIMALS	ANGULAR	TITLE	i-Drive PR-R-3-AW-AT-100
XX	+/- 2	DWG NO.	CABE-00-00
DO NOT SCALE DRAWING	DESIGNER	DATE	2009.07.31
h.g.lim	SCALE	DATE	2009.07.31
6.s.Byum	SCALE	DATE	2009.07.31
		SHEET	1 OF 1

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