



**ELF Podium**  
**User manual**

**MODEL : ELF-192D**

**AHA**

# Contents

<b>I. What is the ELF? Outline, Components and Access</b>	3
<b>II. AMC 7000 Connecting a Computer and Display Device to your Elf Podium</b>	
- Connecting the operating computer	6
- Tablet display driver installation	7
- Projector / Display connection	8
<b>III. Navigating the Elf's touch control pad</b>	
- Password entry	10
- Home	10
- Setup	10
- Multi	11
- Volume	11
- Control	12
<b>IV. AMC 7000 connection diagrams and user guide</b>	
- Diagram of Elf controller ports	14
- VGA Connection	15
- RS-232 Connection	16
- LAN Selector	17
- USB Selector	18
- IR Connection	19
- SCREEN / ELEVATION Connection	20
- AUX Switch Connection	21
- Video Connection	22
- RMS Connection	23
- AMP Control Connection	24
- IR Learning	25
<b>V. AMX3030D connection and user guide</b>	
- Input Connection	27
- Microphone Connection	28
- PC Sound Connection	29
- Audio Selector	30
- Speaker Connection	31
- How to use MIC and Amplifier	32
<b>VI. APD – 600 Power Distributor</b>	33
<b>VII. Protocol Input and Checking</b>	
- Projector Protocol Input	35
- Projector Protocol Checking	36
- PROJECTOR Connection	38
<b>VIII. RFID Card Registration</b>	
- How to input the cards	40
- Executing the Program	41
- Register ID and Save	43
<b>IX. Register RMS and user guide</b>	
- Wiznet Setting	45
<b>X. Firmware Update</b>	
- Update procedure	48
<b>XI. Digital Podium Specification</b>	51
<b>XII. Self-service , Warranty</b>	53

# I . What is the ELF? Outline, Components and Access

## \* What is the Elf?

The Elf system allows the user to write on a tablet monitor built into the podium.

The core technology system allows the user to write directly on a multimedia based teaching plan and save the images or video along with the voice, for the easy production of multimedia learning contents.

The Elf has a built-in sound system (amplifier, wired/wireless microphone, etc..) for e-learning and can be interfaced with all multimedia devices and facilities that the user might employ as teaching or communication tools. The embedded integrated controller allows for the control of devices with a single key and supports plug & play function.

An additional 19" LCD monitor allows the presenter to manage contents, notes, and materials separate from what is being presented.

## \* Components



## \* How to access the Elf

The Elf system comes with its own power distributor, audio amplifier, wireless microphone receiver, and controller. You will need to access these devices in order to setup the Elf and connect it to other tools that the Elf will utilize (DVD player, projector, LCD display, etc). The Elf's devices can be accessed through its main door, or by removing its front plastic cover.

### ◆ Main access door.

The main access door is located below the monitors and keyboard. This door is also supplied with a lock and key to prevent tampering when the system is not in use. Opening this door will give you access to the Elf's hardware control and setting switches. This door can be locked, unlocked, or removed entirely. The door's lock can be found to the left on the side of the Elf. To remove this door, locate its two spring loaded hinges and pull them out of their holes. To reach the Elf's hardware connections, remove the white plastic front access panel.



Main access door



Main access door lock and key



Door hinge and panel release

### ◆ Front access panel.

The front access panel must be unlocked by a switch inside of the Elf. This switch can be found at the top-right of the inside compartment, just below the keyboard tray, and near the top hinge of the main access door. Pulling the ring and switch will release the locking mechanism holding the cover in place. A rope has been attached to the cover to prevent it from falling after pulling the release switch. Removing this panel will allow you to access the connection ports for the Elf's devices.



Front access panel



Panel release switch



Panel locking mechanism



Front panel locking bar

## **II. Connecting a Computer and Display Device to your Elf Podium**



## \*Connecting the operating computer

1. - Select the computer you would like to use for operating the podium and place that computer inside of the podium by opening the main access door. Remember that it will need to be stored on its side. This will not affect its operation. Also prepare the computer's mouse and keyboard. Place the keyboard on the pull out tray, and the mouse on the mouse pad.



2. - Run the Elf's power cable, originating for the power adapter, through one of the holes found on the bottom left or right.



Power Cable

3. - Moving to the back of the Elf, you should find a group of cables originating from the Elf's Multimedia controller and Amplifier (USB, audio, VGA, LAN). You will also find a cable to power the computer coming from the Power Adapter, and a DVI cable originating from the Elf's sub display.

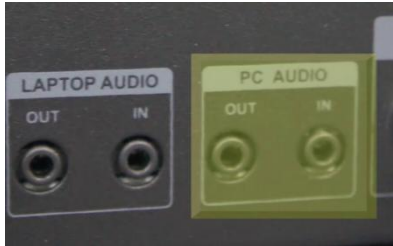
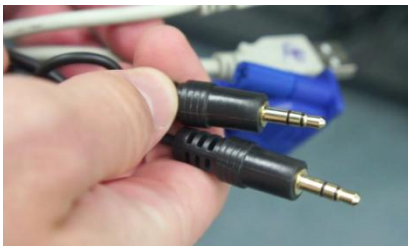


VGA Cable



DVI Cable

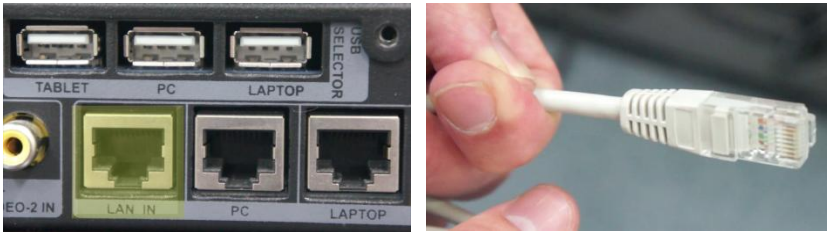
4. – You can start by connecting your mouse and keyboard to the computer. Next, in the group of cables originating from the Multimedia Controller, find the blue VGA cable. Connect it to the video out port on your computer. This cable will connect your computer to the Elf's tablet monitor. Also connect the DVI cable to your computer. This cable is connected to the Elf's sub display, and connecting it to your computer will enable you to operate with dual displays.



5. You may now connect both the "audio in" and "audio out" cables. The audio cables will connect from the computer to the "digital amplifier, AMX-3030D." The 1/8 inch "PC audio in and out" jacks can be found on the

back of the amplifier. Connect these two cables to your computer's audio jacks. The computer's audio output will be coloured green and the input will be coloured pink. The cable originating from the AUDIO OUT port should be connected to your computer's green audio out port, and the cable originating from the AUDIO IN port should be connected to your computer's pink audio in port. If you plan on recording your lesson's audio at any time, it is necessary that the computer's "audio in" port is connected properly.

6. - Connect the remaining USB cables to your computer as well. These are for data sharing, laptop interface connection, and touch sensitivity for the Elf's tablet monitor.



7. - If connecting the Elf to the internet or a network, you will need to connect it using an external LAN cable. The port you should connect the LAN cable to is titled LAN IN, and can be found on the back of the Controller. You can route this LAN cable into the podium by using the same hole you routed the power cable through. In the group of cables that you had originating from the controller, attach the LAN cable to your computer.

## **✦ Tablet display driver installation**

1. - In order to register touch input through the Maestro's tablet display, you might need to upload a driver. This driver can be found on the cd that came with the Maestro. If your computer is operating with Windows 7 and has Microsoft's current touch drivers and software installed, the additional driver may not be necessary.

2. – To install, place the disc in your computer's cd-rom drive and click 'next' when the first window appears.

3. - The installation will begin and you will see the progress bar showing the state of installation. When the installation is finished you will be asked to restart your computer. In order to complete installation correctly you must restart your computer. It is suggested you restart immediately after you install the driver.

4. - After restarting your computer you will be able to use the electronic pen to input touch through the tablet monitor.

## \* Projector / Display connection

You will want to share and present material on the Elf to an audience in a larger format. To do so, you will need to connect the Elf's video output to a projector or other display device. These can be connected in two ways.

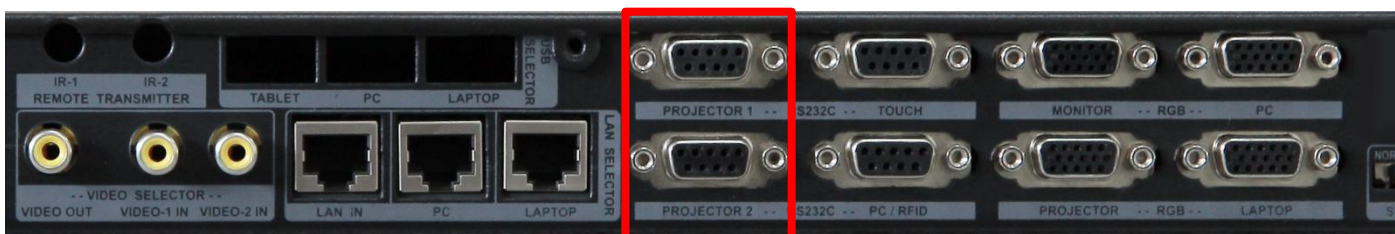
**PROJECTOR RGB (VGA)** – If the video hardware you're connecting to has a VGA input, you can connect to the PROJECTOR RGB output on the AMC-7000. Also be aware that the terms RGB and VGA are often used interchangeably.



**VIDEO OUT (RCA connection)** – If the video hardware you're connecting to has a yellow RCA input, or “composite video” input as it is commonly referred, you can connect it to this output as well.



**PROJECTOR 1 / PROJECTOR 2 Control (RS232C connection)** – If the video hardware you're connecting to has an RS232C input, you can connect to this output. The RS232C cable will have 5-pins on its top and 4 on its bottom. This connection is not used for transferring video, but instead for device control. When connected, you can program the Elf's controller to command power and other menu functions of the video display device.



**ALTERNATIVE CONNECTIONS** – There are a number of video connection types available for a number of devices. HDMI, DVI, and Component video inputs are the most popular amongst the several available. The Elf's controller provides connection to video devices through VGA and RCA. While many devices will connect directly to these ports, some will not have either VGA or RCA. In this case, it will be necessary for you to purchase a conversion cable. Cables for converting VGA and RCA to other formats are common and should be available at any electronics, or audio/video store.



### **III. Navigating the Elf's touch control pad**

## ◆ Password Entry

After turning on the Elf, the 7" touch control will display a screen asking you to input your password. Enter your 4-digit password and press the Enter button. This will take you to the controller's home display.



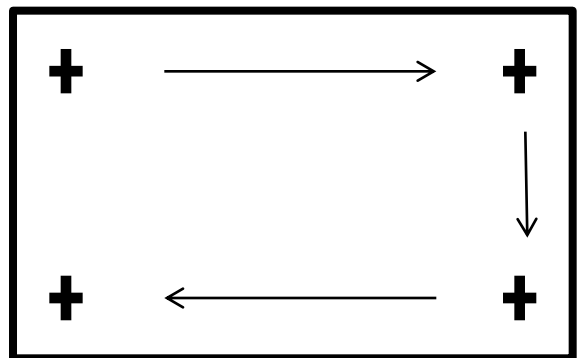
## ◆ Home

From the "Home" screen you can enter Multi, Voice, Control, or the Setup menu for the LCD controller.



## ◆ Setup

The Setup menu allows you to adjust basic operational settings for the controller. The first three buttons change the brightness settings of the control pad. The next two buttons control volume and IR input settings. The final button is for calibrating the touch sensitivity of the control pad. To calibrate touch, you must press on the cross points where they appear on the control pad.



## ◆ Multi

Selecting Multi will initiate the Elf system by automatically choosing your computer as the source to display. Your computer will be displayed on the Elf's monitors, and if connected to, your external display device (projector or television) will be turned on. Sources appear along the top of the screen, and the source being used at the time will be shaded.

**Sources** - The first source is Computer, this is the Elf's main computer. The second source is Laptop and this will select whatever device

you have connected to the Elf's Laptop Interface. The next button is Visual and it will allow you to choose to display other devices such as dvd or blue ray players. Selecting a different source

will display both the visual and audio outputs from the selection. When computer or Laptop are selected, the volume settings will remain below to control the Gooseneck Microphone, Wireless Microphone and main volume levels.

**Visual** – Selecting Visual allows you to choose from other AV equipment you have connected with the Elf. You are also able to control basic functions for the equipment. After you have taught the Elf the proper IR signals, you can turn the equipment on or off and operate basic controls for playing media.

## ◆ Volume

The Volume menu contains the same volume options as when having Computer or Laptop selected. In this menu is possible to adjust the volume levels of the Gooseneck Microphone, Wireless Microphone, and the source output. Don't forget that the master control is located on the Elf's amplifier. This volume control will determine the final output level.



## ◆ Control

Selecting Control from the Home menu will provide you with the ability to control equipment external to the Elf podium. The controller can be set-up to operate things such as external microphones, displays, projectors, lights, or even room temperature controls.

**Table Mic** – Controls microphones external to the Elf. Use this to control volume and tone for microphones other than the Elf's standard gooseneck and wireless microphones.

**LCD/Projector** – Selecting this button will bring up power and source options for your video display device. It's possible to turn your display device on or off and choose which input it will display.

**Light** – If connected to your Elf podium, you can control your lecture hall or presentation room's lighting in this menu. Here it is possible to turn the lights either on or off.

**Motor** – Selecting Motor will give you options for controlling your projector and projector screen. If you've connected the control cables to the Elf, you will be able to raise or lower the screen, or change the elevation of the projector.

**Tone** – Tone settings for the Gooseneck, Wireless, and source audio outputs are found here. You may adjust each until you find a level that sounds appropriate to you.



Table Microphone



LCD



Motor



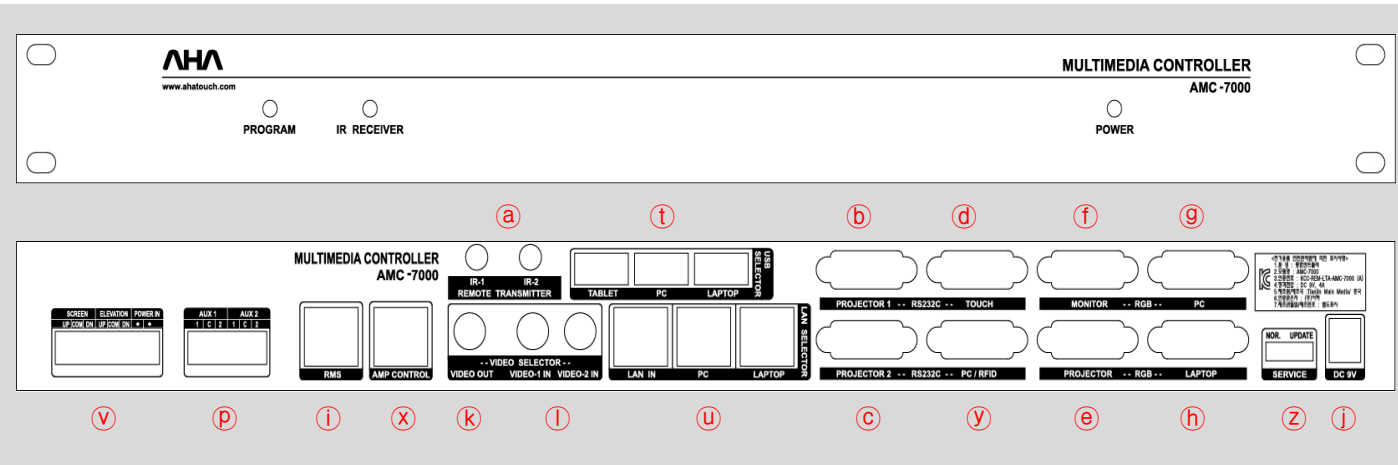
Tone



# **IV. AMC 7000 connection diagrams and user guide**

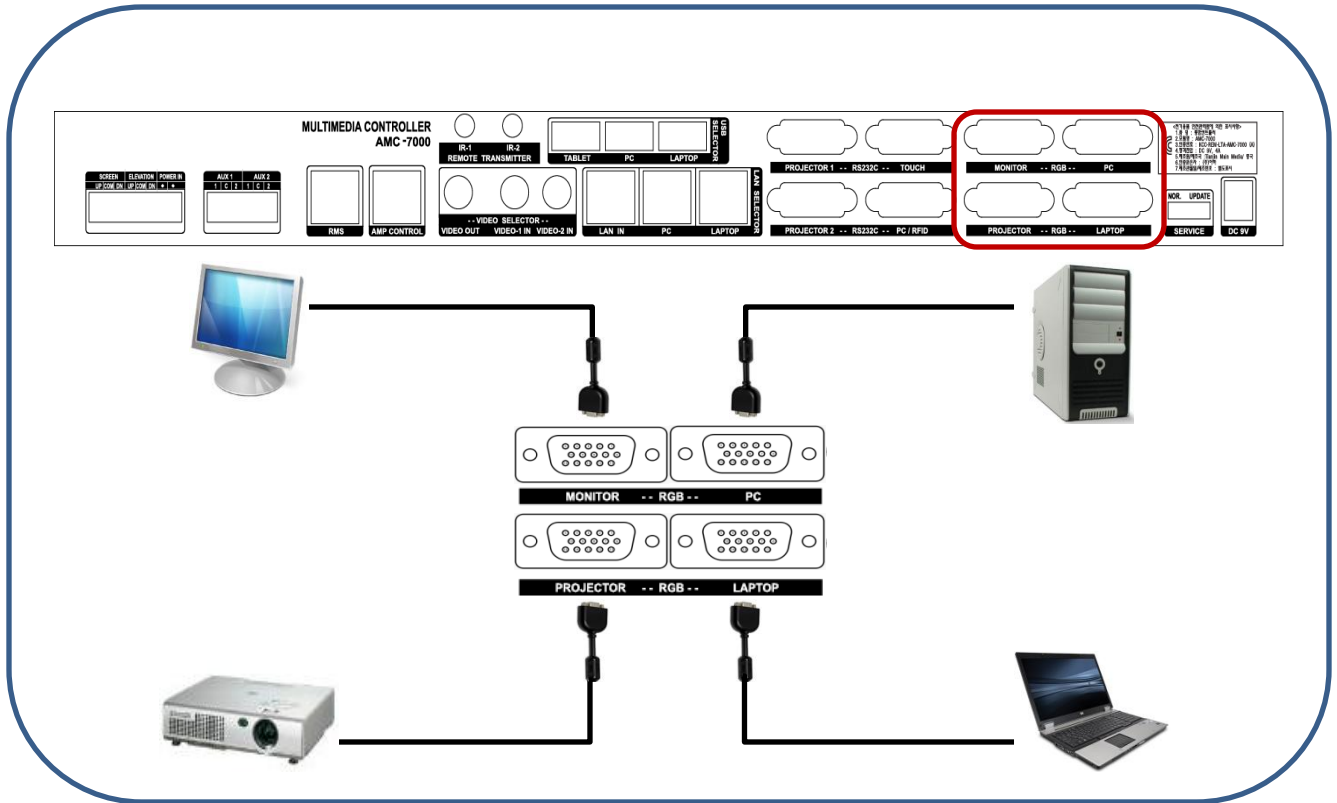
# Diagram of Elf controller ports

## Controller (AMC-7000)



- Ⓐ IR OUT : IR output.
- Ⓑ PROJECTOR 1 : Connect projector with RS-232
- Ⓒ PROJECTOR 2 : Connect projector with RS-232
- Ⓓ TOUCH : Connect 7" LCD Controller .
- Ⓔ PROJECTOR : Projector VGA OUT.
- Ⓕ MONITOR : Monitor VGA OUT.
- Ⓖ PC : Computer VGA IN.
- Ⓗ LAPTOP : Laptop VGA IN.
- Ⓘ RMS : Input the Remote control LAN
- Ⓝ DC 9V : Main power input.
- Ⓚ Video OUTPUT : Video and Audio output.
- Ⓛ Video INPUT : Video and Audio input. ( A/V Selector).
- Ⓟ AUX SW : Power and Switch control
- Ⓢ Slide Switch : Firmware input switch. (left : Operating Mode, right : Input mode)
- Ⓣ USB Port : Tablet → Monitor ; PC → PC USB ; NOTE → Notebook Interface
- Ⓤ LAN : LAN IN → Main Input ; PC → PC LAN Input : NOTE → Notebook Interface
- Ⓟ SCREEN / ELE : Connect Screen and elevation \* Unavailable DC
- Ⓧ AMP Control
- Ⓡ PC / RFID : PC program input and Connect RFID Reader .
- Ⓩ Switch : Firmware Update

# VGA Connection



## Selecting an operating computer

- ◆ To use a desktop computer:

1) Choose 'Desktop' by pushing the button on the 7inch touch control pad.

**\* Default setting will have 'Desktop' mode selected.**



- ◆ To use a Laptop.

1) Choose 'Laptop' by pushing the button on the 7inch touch control pad.

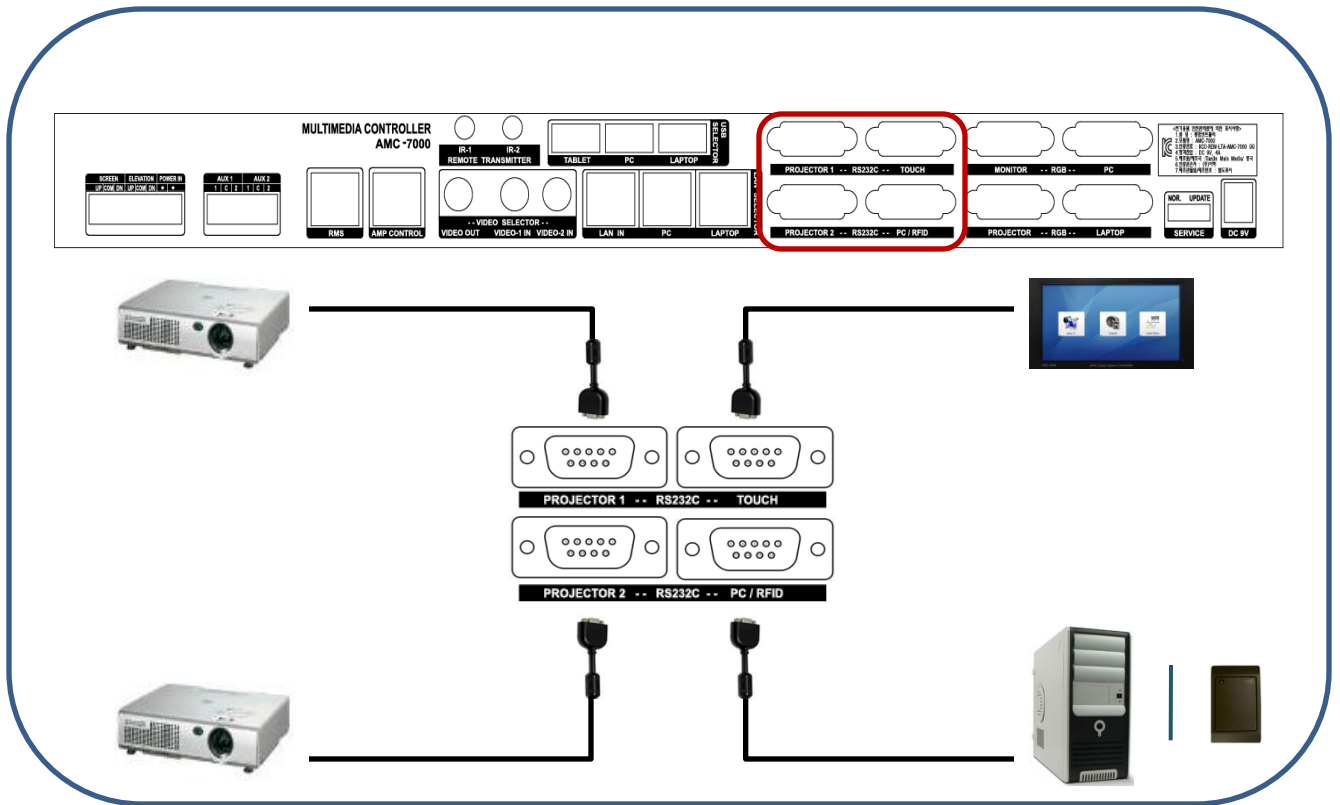
2) Connect the Laptop power adapter, RGB Cable, USB, and sound input.

Connect the LAN Cable with the Laptop socket on the podium's upper cover .

**\* To use touch function, software must be installed on the laptop**

3) Choose 'Desktop' to go back to the main computer.

# RS-232 Connection



## \* RS-232 PIN Map

TOUCH	
PIN	Signal
2	TX
3	RX
5	GND

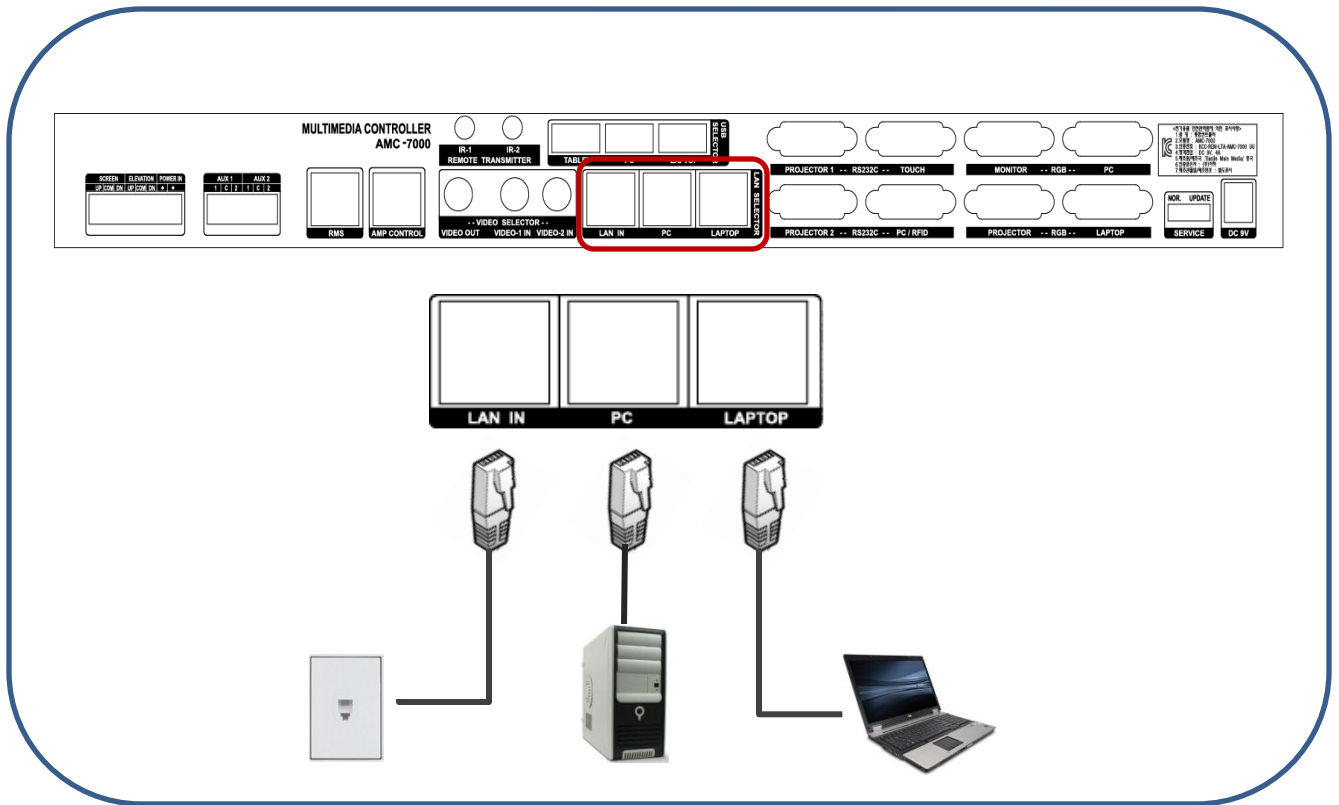
PC / RFID	
PIN	Signal
2	TX
3	RX
5	GND
7	5V

PROJECTOR 1	
PIN	Signal
2	TX
3	RX
5	GND

PROJECTOR 2	
PIN	Signal
2	TX
3	RX
5	GND



# LAN Selector



## \* LAN Selection

### ◆ Using the computer's LAN.

1) Choose 'Desktop' by pushing the button on the 7inch touch control pad.

\* Default setting will have 'Desktop' mode selected.

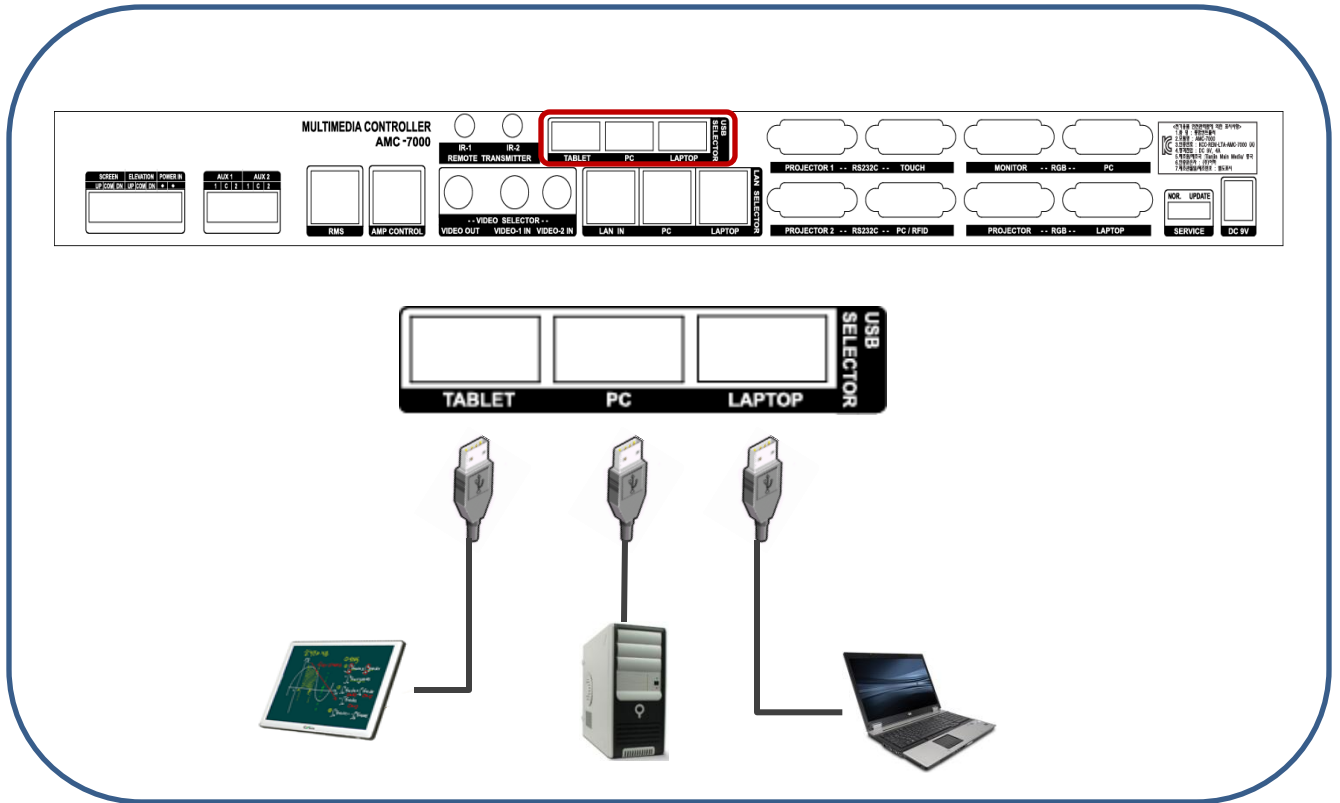


### ◆ Using a Laptop's LAN.

1) Choose 'Laptop' by pushing the button on the 7inch touch control pad.

2) Choose 'Desktop' to go back to the main computer.

# USB Selector



## \* USB Selection

### ◆ Using the computer's USB.

1) Choose 'Desktop' by pushing the button on the 7inch touch control pad.

\* Default setting will have 'Desktop' mode selected.

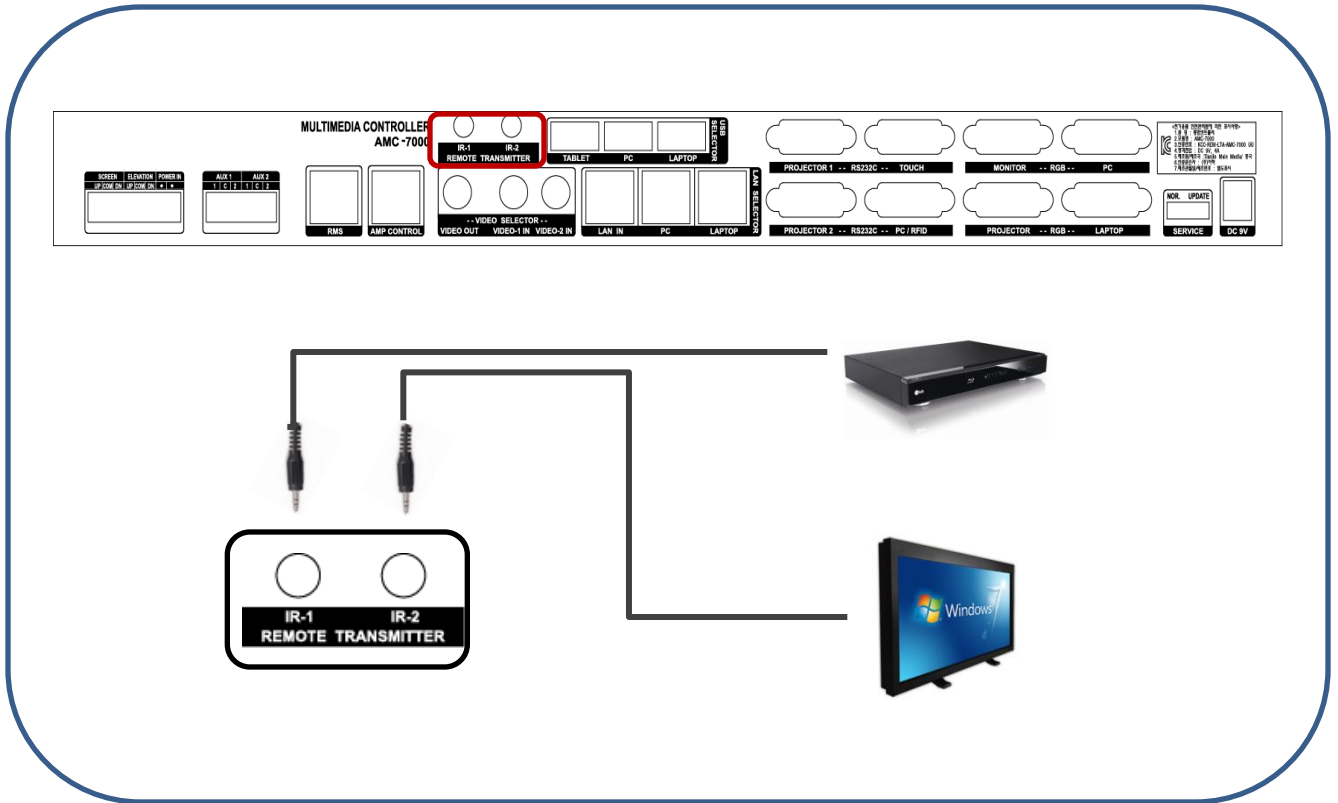


### ◆ Using a laptop's LAN.

1) Choose 'Laptop' by pushing the button on the 7inch touch control pad.

2) Choose 'Desktop' to go back to the main computer.

# IR Connection



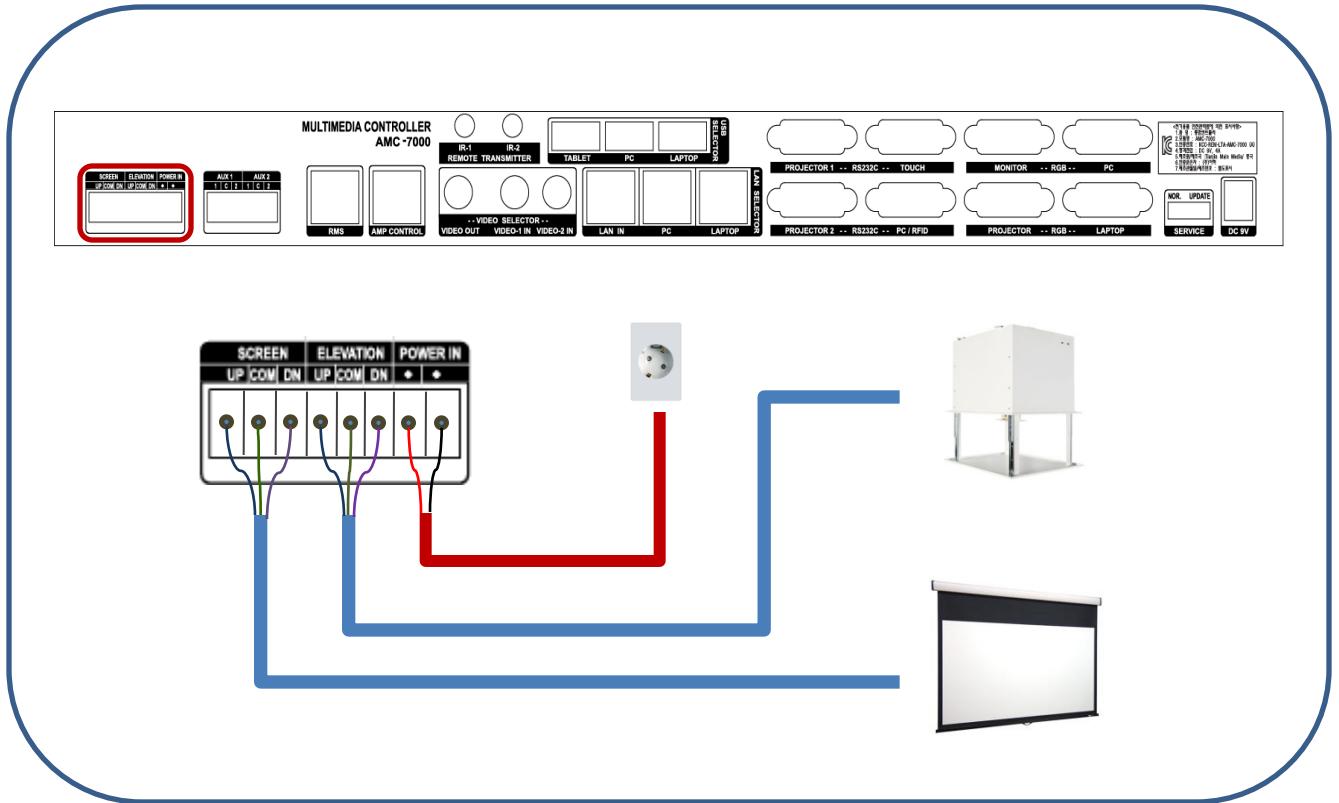
## \* IR Connection

- ◆ Connect a Device. (DVD players, cable boxes, or any devices with IR controllers)
  - 1) Connect the IR cable supplied with the device to its IR port.
  - 2) Connect the other end of that cable to “IR1” on the back of the multi controller (AMC-7000). Using another cable, connect one end to IR2 and the other to your display device’s IR input..
  - 3) If the cable is too short, you may connect another cable by using a gender adaptor.
- ◆ Working test.
  - 1) Firstly if you want to check if LED works correctly, you can check the blinking of LED after pushing the related button on the 7inch LCD pad by mobile phone camera or normal camera.
  - 2) Regarding how to input IR, please refer to following IR Learning pages.

**Warning 1 : So that LED can communicate with device’s IR receipt part well, it should be close to receipt part.**

**!Warning 2 : When extending an IR cable, signal breakdown may occur. This is more likely to happen if more than one cable is used.**

# SCREEN / ELEVATION Connection



## \* Controlling a Screen

### ◆ Automatic screen or elevation (Up / Down) control

- 1) User can move the screen up and down by using the AMC – 7000 touch controller.
- 2) When pushing the 'STOP' button, the screen will be stopped.
- 3) When pushing the 'DOWN' arrow button, the screen will move DOWN.
- 4) When pushing the 'UP' arrow the screen will move UP.

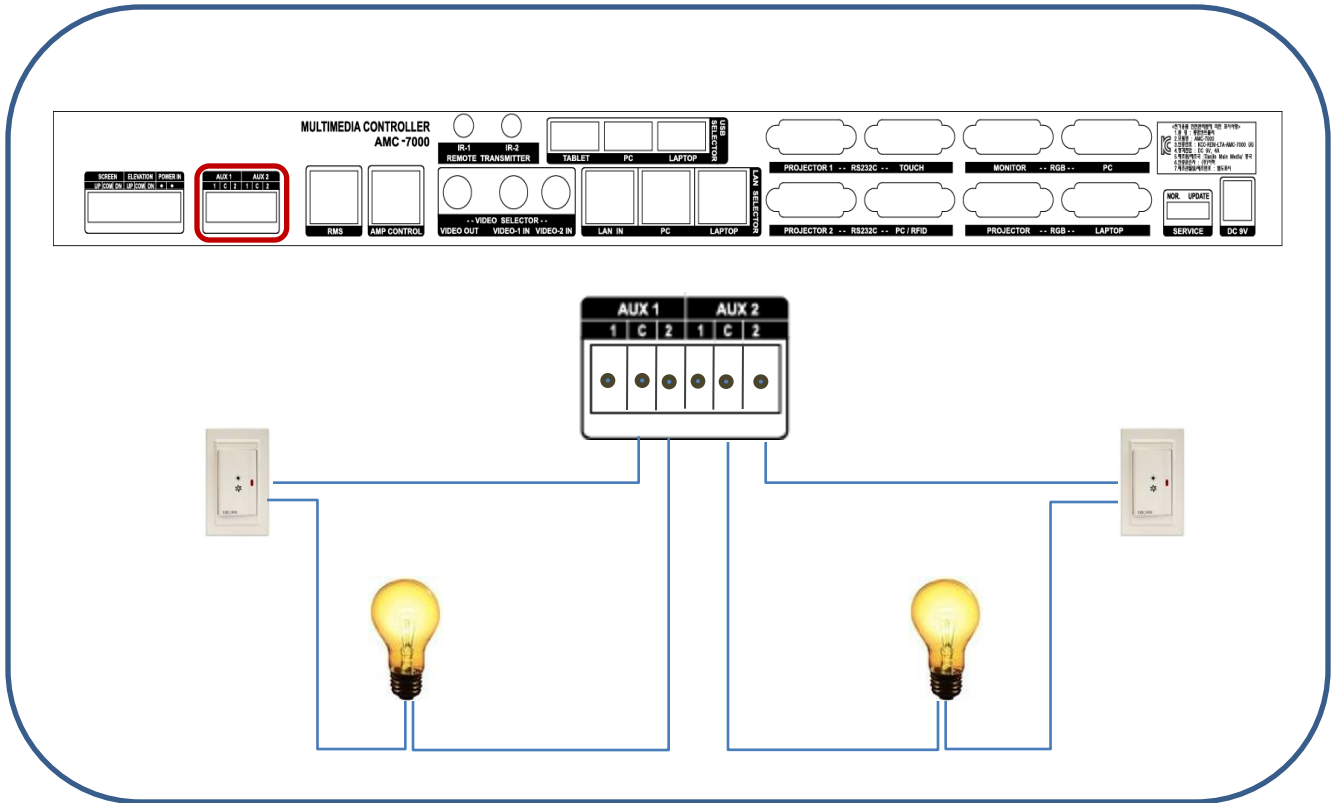


**! Warning1 :** There is a 220V plug outside of the controller. When connecting the controller's 220V to POWER IN to this plug, 220V will be supplied to screen's elevation motor. If there is power also supplied outside of this, the controller will be overloaded.

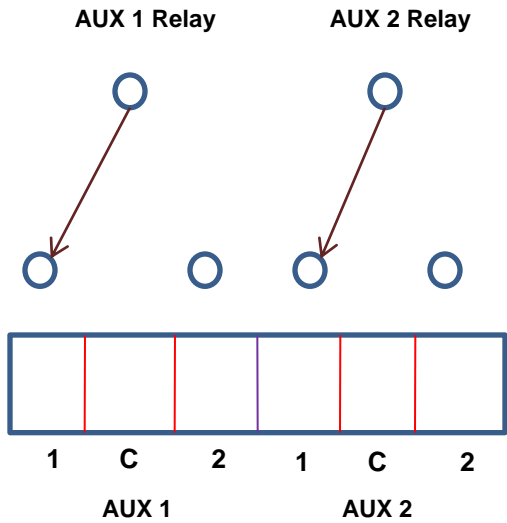
**! Warning2 :** Please check if the screen's elevation motor is AC or DC. The controller will send an AC current and damage any DC motors that are connected.



# AUX Switch Connection

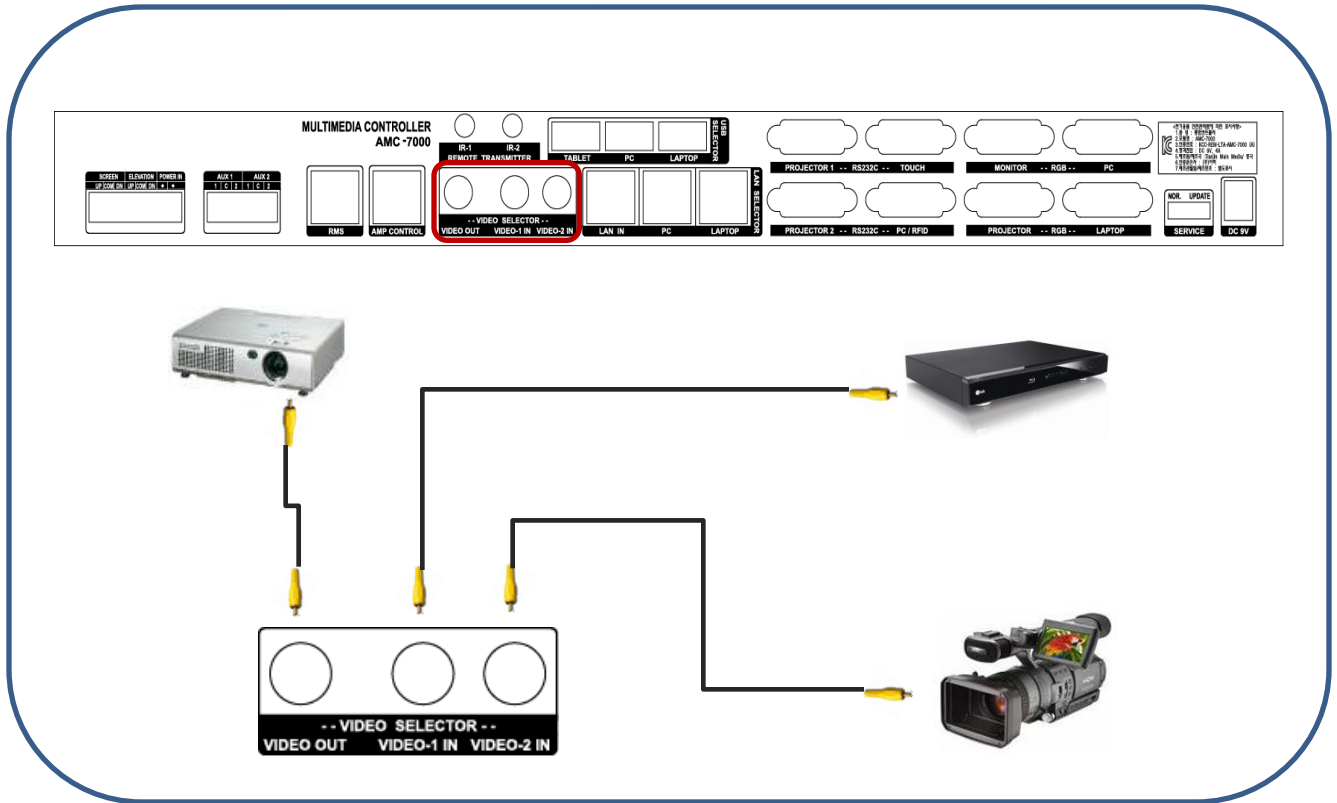


## AUX circuits



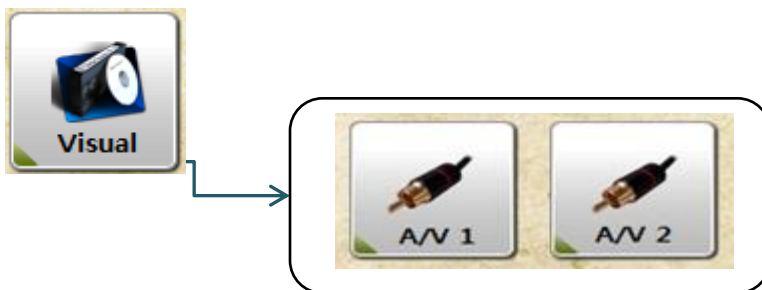
 **When first turned on, the default connections are 1 and C.**

# Video Connection

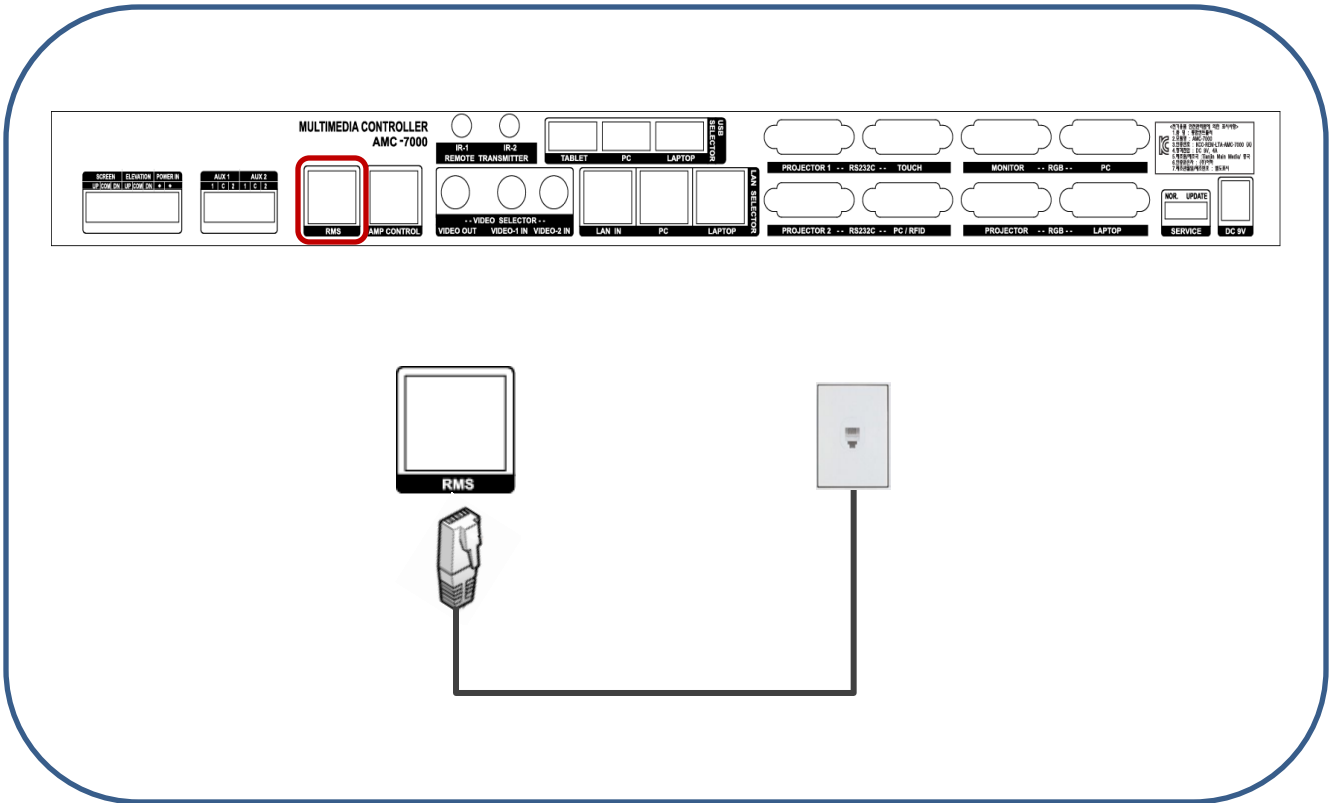


## \* Video source selection

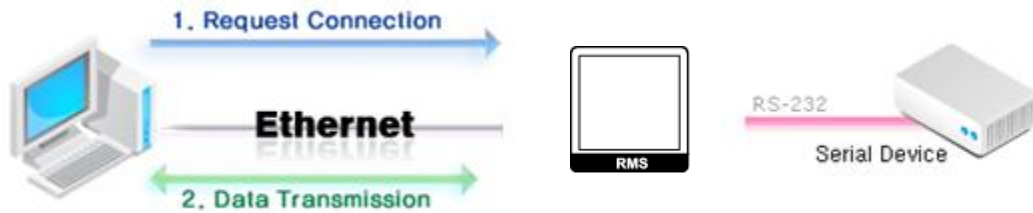
- ◆ User can select alternate video sources by using input 1 or 2
  - 1) External video sources can be connected through the laptop interface and main controller . There is also an audio terminal in the amplifier where the audio from these video sources can be connected.
  - 2) When pushing the A/V Selection button, the user can select input 1 or 2.
  - 3) The video source that is chosen to be output will also have its audio output from the amplifier, if available.



# RMS Connection



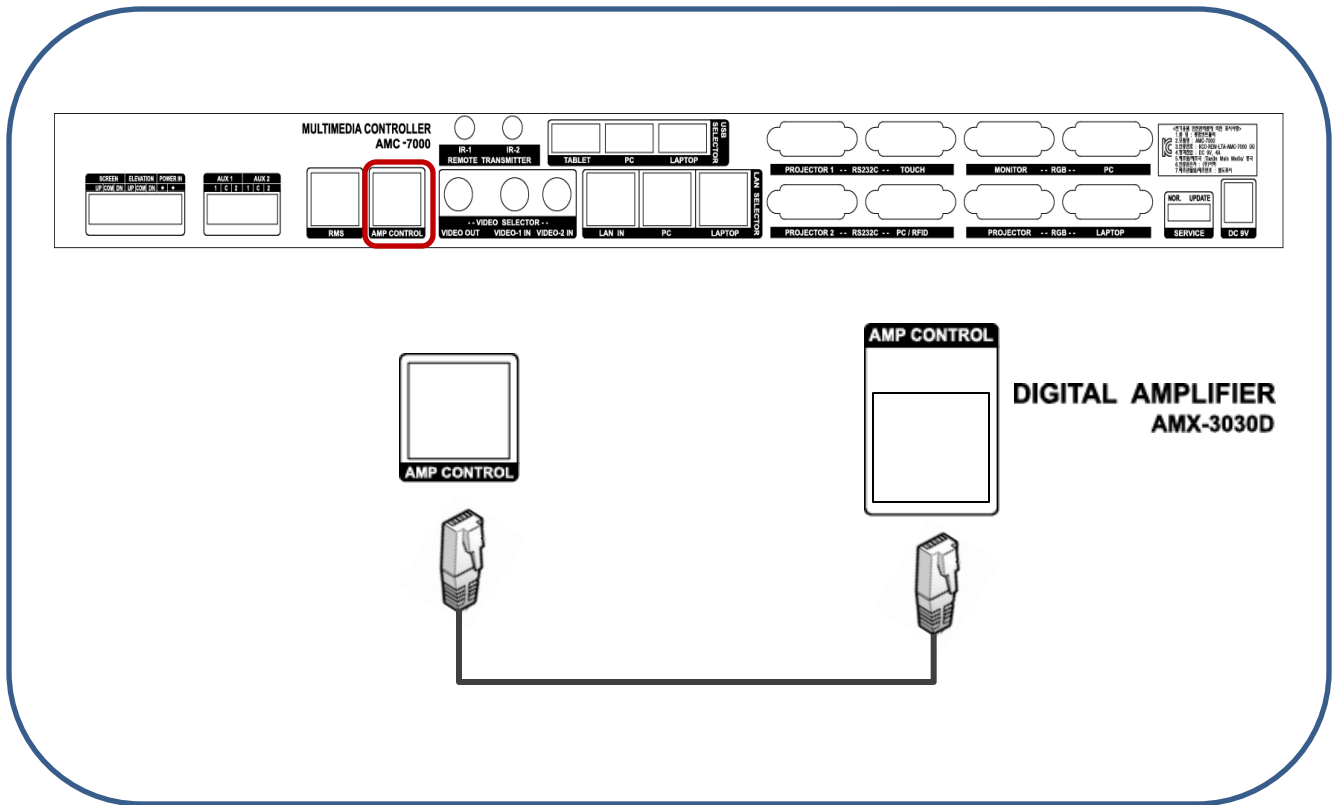
## \* System flow



### 👁 Main function

- ◆ By using a network module, all equipment that can be controlled in the podium can also be controlled through a server.
  - Projector ON/OFF function.
  - Screen UP/DOWN control.
  - Control of other video equipment and sound equipment.
  - Status monitoring.
  - Checking the connection of the network.

# AMP Control Connection



## \* Amplifier control

### ◆ Amplifier connection.

- 1) The Controller and Amplifier are connected using a UTP cable.
- 2) Using 1 : 1 UTP line (can use previous LAN cable)

\* 'PC Sound' is installed as the default audio source.

! Warning : The type of communication between controller and amplifier is 12C communication.

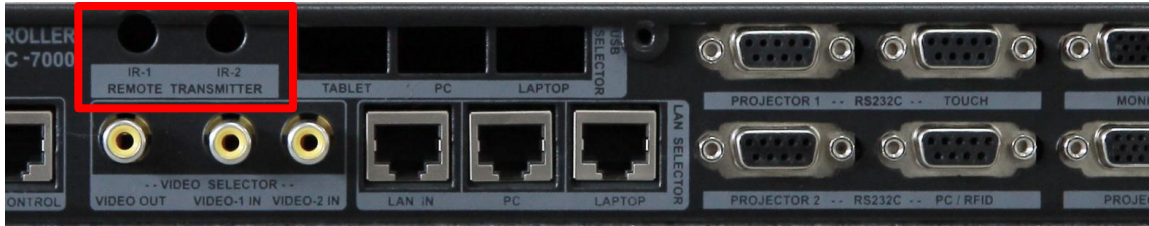
If more than 1m of line is used between the controller and amplifier, communication may become distorted or disconnected.

### ◆ Reset function and tone adjustment.

- 1) Configuration → It is possible to return to initial volume settings by using the reset option.
- 2) In Tone menu, PC or MIC levels can be regulated.

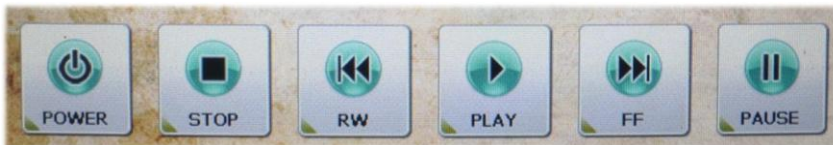
## IR Learning

If using the Elf to control external devices, the Elf's controller (AMC-7000) must be programmed to recognize them. It can control equipment by storing that equipment's remote control signals. PROJECTOR 1 and PROJECTOR 2 ports must be connected to devices using an RS-232 connection. Devices without an RS-232 connection can be controlled via REMOTE TRANSMITTER ports IR-1 and IR-2.



## ◆ DVD , VCR input

1) Select the device you want to program. Push the 'Pause' button of the 'Combo Menu' 5 times.



2) The main controller's (AMC-7000) red 'Program LED' light will then be turned on.

3) Push the button (on the 7inch LCD control pad) for the attribute of the DVD, VCR or other device you would like to program to control through the Elf.

4) Using the device's remote control, push the corresponding button for the attribute you selected to program, and point the remote control toward the 'IR receiver' of the main controller.

5) If input was finished correctly, the main controller's 'Program LED' will still be flickering.

If the LED is flickering very quickly, an error occurred while inputting the signal. You must try to complete the process once more.

6) When all inputs are finished, push the 'Mute Off' button 5 more times. The main controller's 'Program LED' will then be turned off.

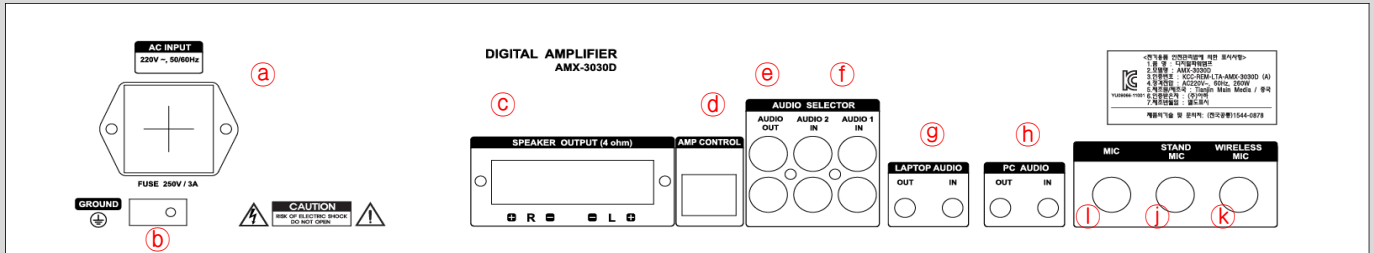
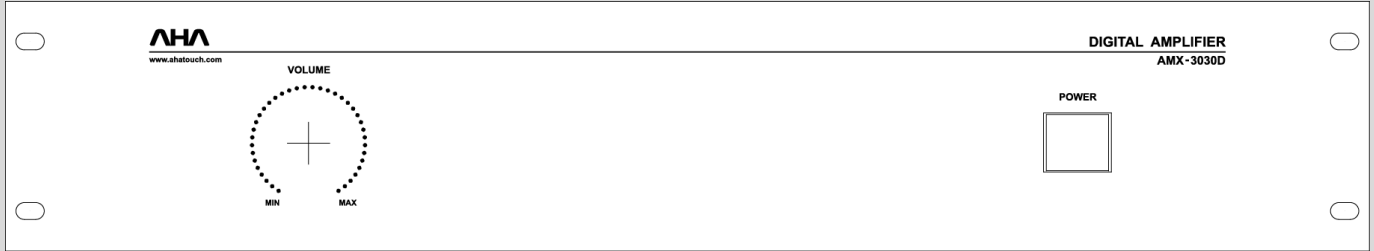
7) After inputting the signals and turning off Program mode, check that you completed the process correctly by trying to operate your device with the Elf's control pad.

## **V. AMX3030D connection and user guide**



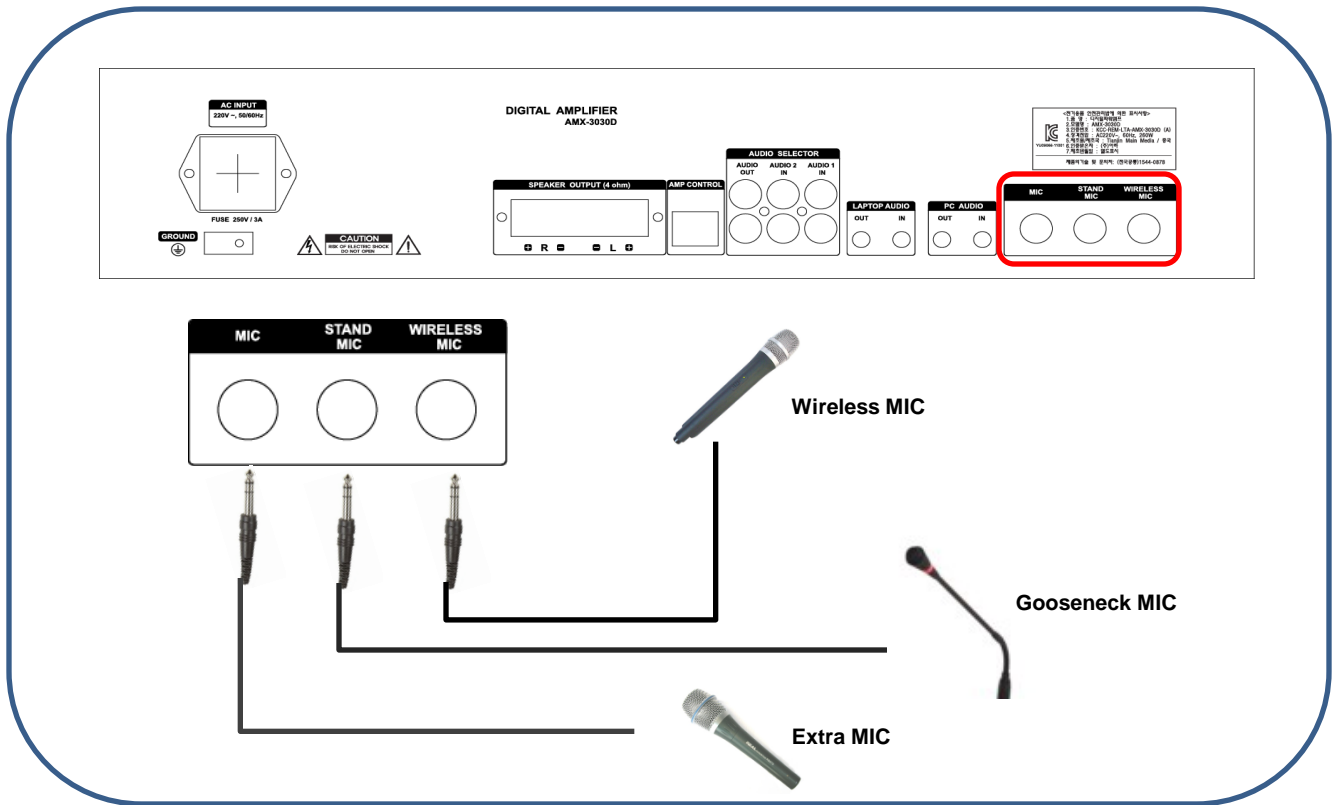
# Input Connection

## Digital Amplifier (AMX-3030D)



- a) Power input (220V 50/60 Hz)
- b) GND
- c) Speaker terminal
- d) AMP Control : Connect to AMC 7000.
- e) AUDIO OUT : Selected AUDIO output of AUDIO 1 or AUDIO 2.
- f) AUDIO IN
- g) LAPTOP : Lap top computer AUDIO IN / OUT
- h) COMPUTER : Desk top computer AUDIO IN / OUT
- i) Input outside MIC.
- j) Stand MIC input : main power input.
- k) Wireless MIC input.

# MICROPHONE Connection



## \* Microphone connection.

### ◆ 5.5 Total of 3 microphones can be input by using MIC cable.

- 1) Connect the Gooseneck MIC to the upper part of the podium. Inside the podium its cable should connect to the 'STAND MIC' on the back of the AMX-3030D amplifier.

Phantom power of 12V is provided through the 'STAND MIC' jack.

**If the Gooseneck MIC is not connected to 'STAND MIC,' it will not work.**

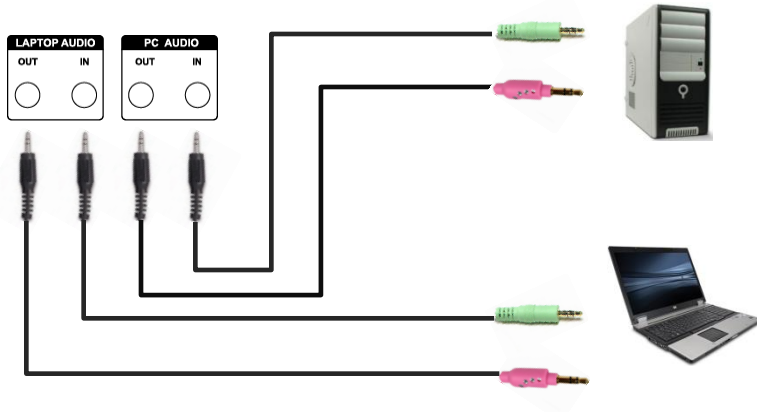
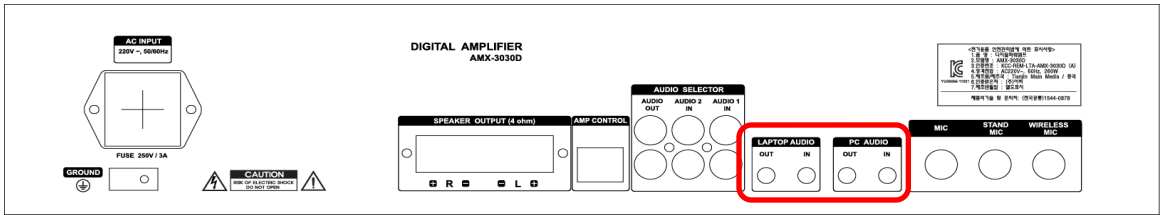
- 2) Connect the OUT port of the wireless MIC receiver to the 'WIRELESS MIC' port of the amplifier.
- 3) The amplifier has one more MIC input port which can be used for an alternate MIC.

**Outside MIC port does not output power and cannot provide phantom powering.**

### ◆ Gooseneck MIC Pin Map

Gooseneck MIC	
PIN	Signal
1	GND
2	Signal
3	12V

# PC Sound Connection



## PC Selector

### ◆ Connect to a Desktop computer.

1) Choose 'Desktop' by pushing the button on the 7inch controller pad.

\* Default setting will have 'Desktop' mode selected.

### ◆ How to use laptop computer.

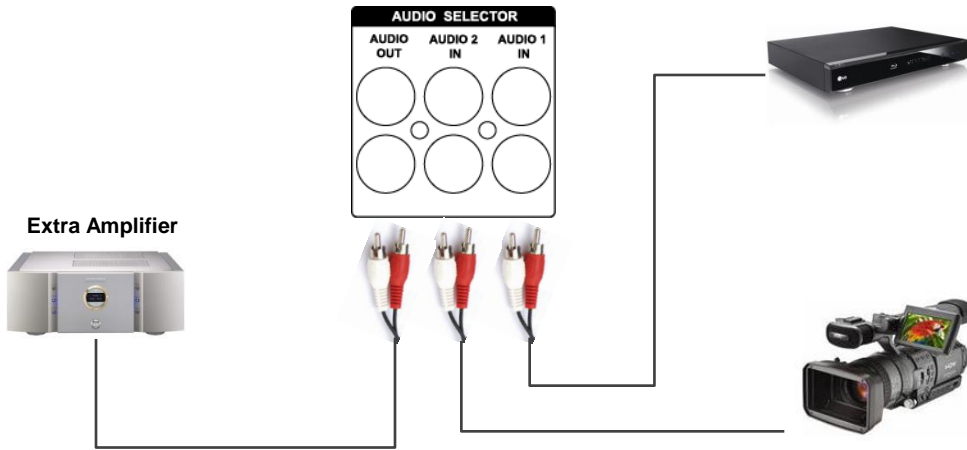
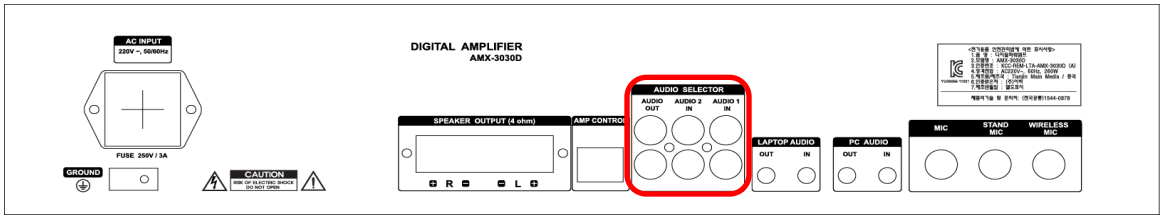
1) Choose 'Laptop' by pushing the button on the 7inch controller pad.

2) Choose 'Desktop' to go back to the main computer.



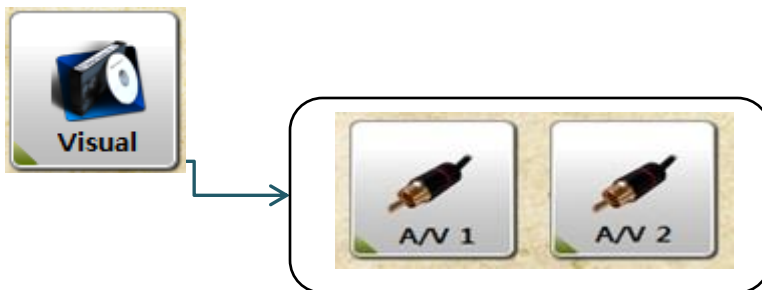
PC Sound can be recorded after connecting the amplifier's 'PC AUDIO OUT' to the PC's audio IN port (pink).

# Audio Selector

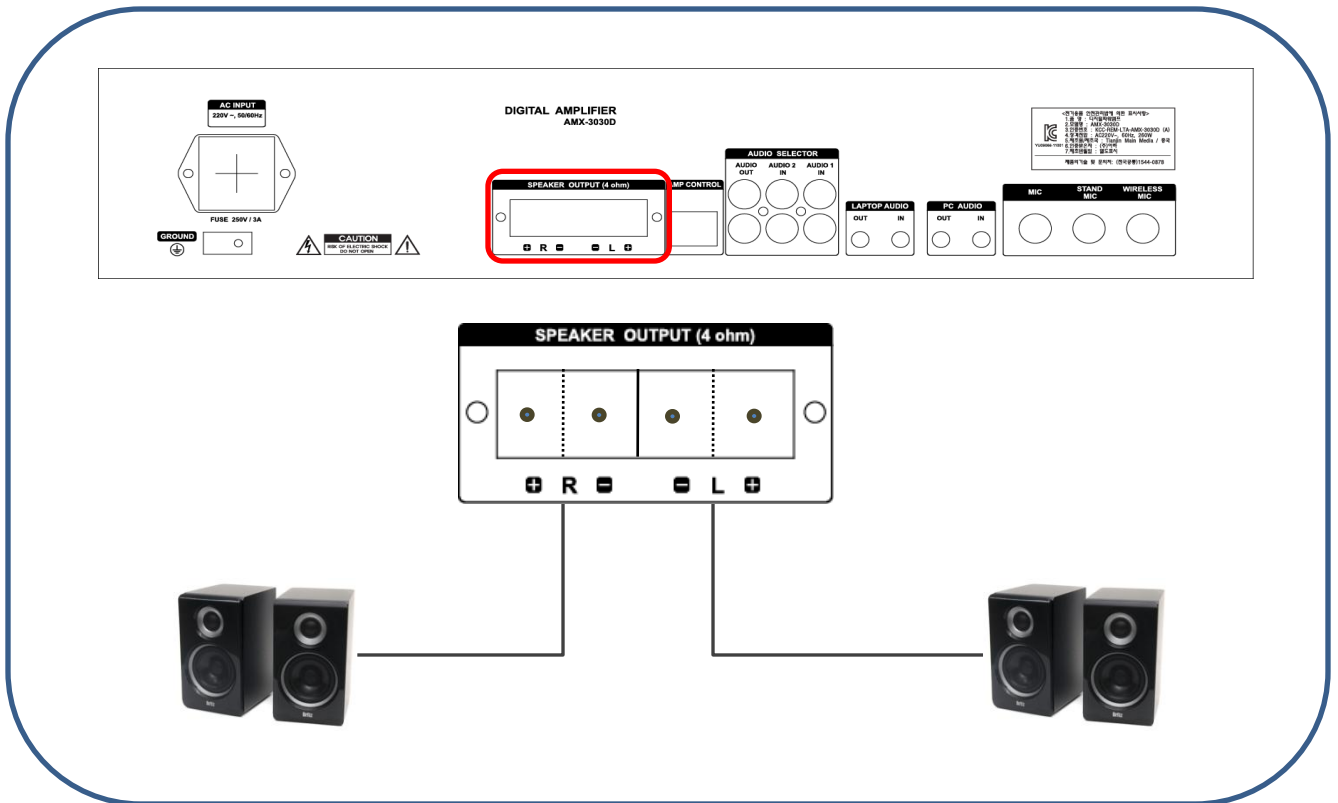


## \* Audio Selector

- ◆ User can select Sound source by using Audio Inputs 1 and 2.
  - 1) The lap top interface has its own dedicated audio ports. The other two audio inputs provide audio for the alternate video sources you selected (see page 13). 'VIDEO 1 IN' is paired with 'AUDIO 1 IN' while 'VIDEO 2 IN' is paired with 'AUDIO 2 IN.'
  - 2) When pushing A/V selector button, the user can select between inputs 1 or 2.
  - 3) The audio output signal can also be sent from 'AUDIO OUT' to an external audio amplifier.



## Speaker connection.



### \* Speaker connection

◆ Amplifier can support a Maximum output of 280W (140W + 140W), 4Ω.

**! Warning : Speaker output and outside output can work when sending the output signal from main controller. If there is no output from the amplifier, check the control cable(UTP).**

## How to use Mics and Amplifier.

### Features and how to work.

#### ◆ Wireless Microphone.

- ▲ Using a frequency around 700MHz, which is a standard according to the Law of Wireless Telegraphics in Korea.
- ▲ It is divided into both A and B channels and supports a total of 32channels (each A and B support 16 channels)
- ▲ Can use immediately after purchasing without any registration or approval. The wireless microphone is included with the Elf podium. Because they allow freedom of movement, wireless microphones are suitable for classrooms and conference rooms.

#### ◆ How to operate

- 1) The wireless microphone is connected to the Elf through the Wireless Microphone Receiver (AWM-U82R).
- 2) To regulate volume levels for the wireless microphones, first use the WIRELESS VOLUME controls on the receiver. Avoid using wireless microphones in front of your system's speakers, as this is the source of feedback.
- 3) 16 effective channels can be used.
  - ▲ Changing channel(wireless receiver)
    - 1) When pushing the SET button, the relevant channel will be shown flickering on the LCD Pad.
    - 2) Adjust to the desired channel by using the UP and DOWN buttons.
    - 3) Escape this menu by pushing ESC.
  - ▲ Changing channel (wireless MIC)
    - 1) Remove the battery cover.
    - 2) User can find the channel selector, shaped with a cross.
    - 3) Turning the channel selector to match the same channel as the wireless receiver.

#### ◆ Wireless audio troubleshooting.

- ▲ Check the table of common problems below before confirming a breakdown with the hardware. If you are unable to resolve the problem after checking the list below, please contact your local customer car center.

Problem	Cause	Possible Solution
No sound	Microphone has no power. Check that the channels of both the microphone and receiver match.	Check the batteries in the wireless microphone. Recharge or replace the microphone's batteries. Choose the correct channels.
Very small sound	Check volume setting on amplifier.	Adjust volume accordingly.
Receipt sensitivity is poor	Check antenna connection.	Connect antenna correctly.



## VI. APD – 600 Power Distributor



### Power Connection

1. Main Power
2. Status of DC Output LED(RED / GREEN)
3. Input AC POWER ( 100V ~ 240V , 50 / 60 Hz )
4. Output AC POWER ( 100V ~ 240V, 50 / 60 Hz ) 6CH
5. Output DC Power

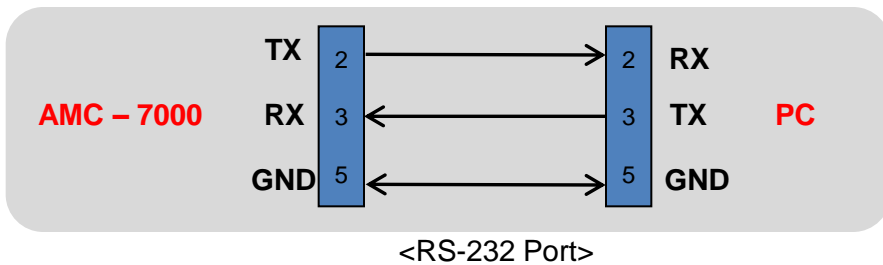
Output Name	Output Current(A)	Connect
12V	4A	Controller
12V	4A	Elevation for Monitor
5V	2A	7inch LCD Controller
15V	1.8A	RFID Reader
24V	2.5A	-

**! Warning : Never disassemble the product when powered, as there is a high risk of serious injury due to electrical shock.**

## VII. Protocol input and checking

## 👉 Projector Protocol Input AMC 7000

Connect your PC to the Elf's Controller "PC / RFID" Port using a single RS-232 cable.



### ♣ How to input

< PC Windows execution screen



### ◆ INPUT PROCEDURE

1. When inputting Protocol, copy the file 'vb6ko.dll' into the system32 folder, and then install 'Vbruntimes' (if not installed, there may be an error).
2. Connect the device to RS232 port PROJECTOR 1 or 2, and your computer to PC/RFID. Next, execute 'Protocol Input AMC 7000.' Check the PC port in your computer's device manager, and check that your computer registers the connection.
3. Select the 'COM PORT' number you have connected to from the drop down menu, and press 'OPEN.' The red 'Program LED' on the front of the main controller should light up. If the port setting was wrong, you will find an 'error' message. If there was an error, proceed once again after checking the port.
4. Selecting the desired Projector Brand.
5. When pushing the 'ON' protocol button, the red 'Program LED' on the main controller will be flickering. This means the system is now updating, so DO NOT push any others buttons, wait till the LED stops and beeps. If pushing another button by mistake, no input will be made. You can press ON, OFF, VIDEO, PC, MUTE ON, and MUTE OFF. Press each button once until you hear a beep coming from the controller, AMC 7000. Input your desired settings one by one until finished.
6. When all inputs are finished, press the 'CLOSE' button and exit the program.

## 👉 Projector Protocol checking

Even if input was done correctly, it may be not working correctly.

In this case, check each setting carefully, one by one.

## ♣ How to check

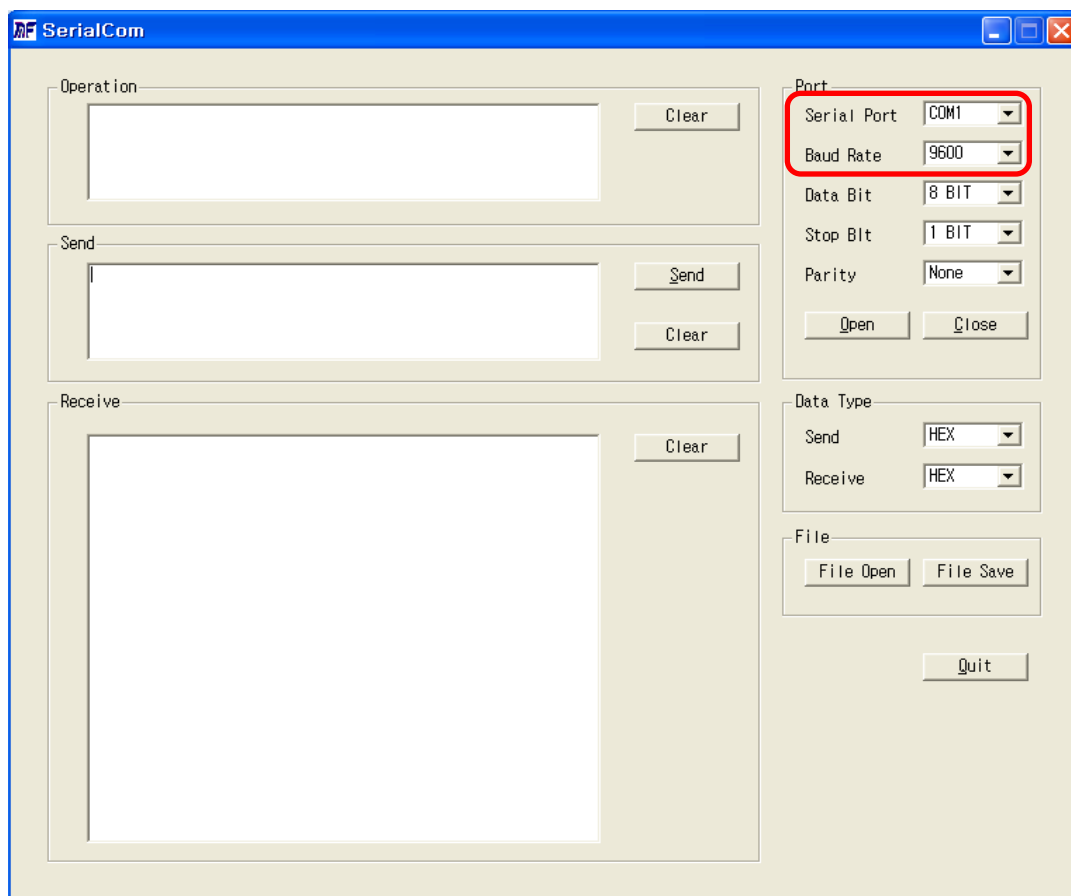
### ◆ Checking controller AMC- 7000

- If the input was done correctly, the output should be done correctly.

**But, because the signal is invisible, user can check the signal by using serial works or hyper terminal.**

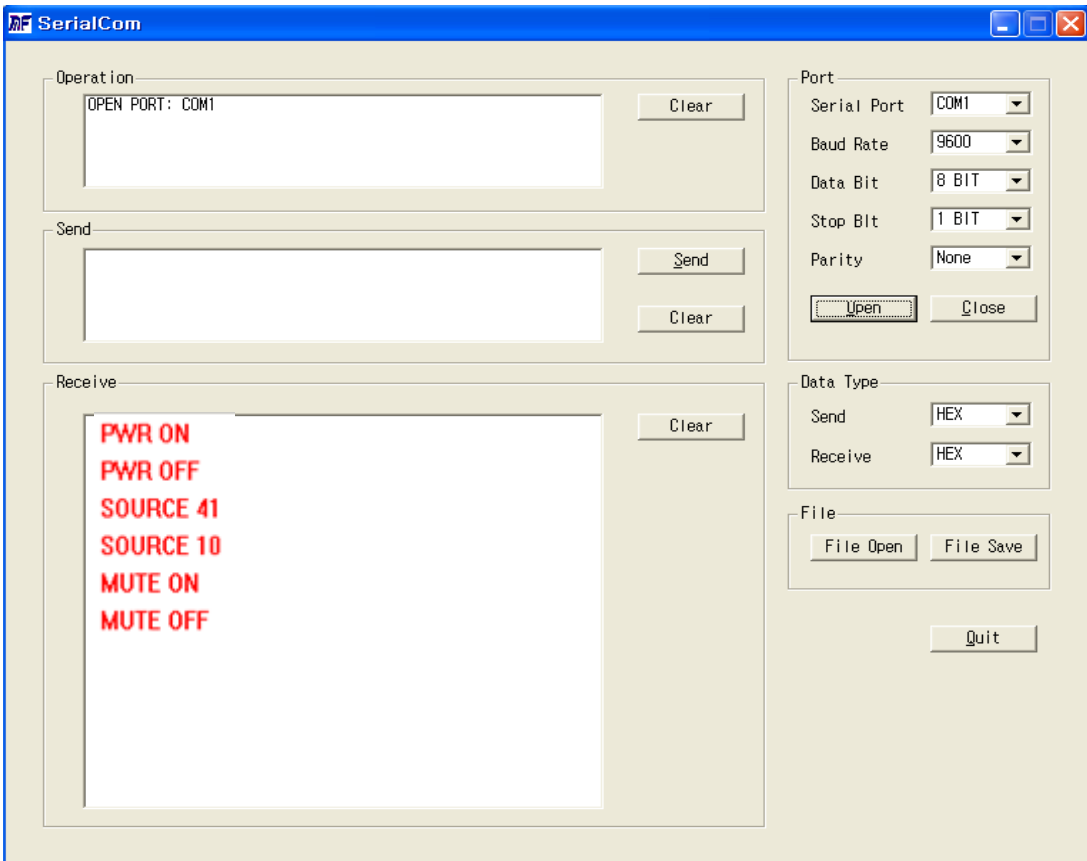
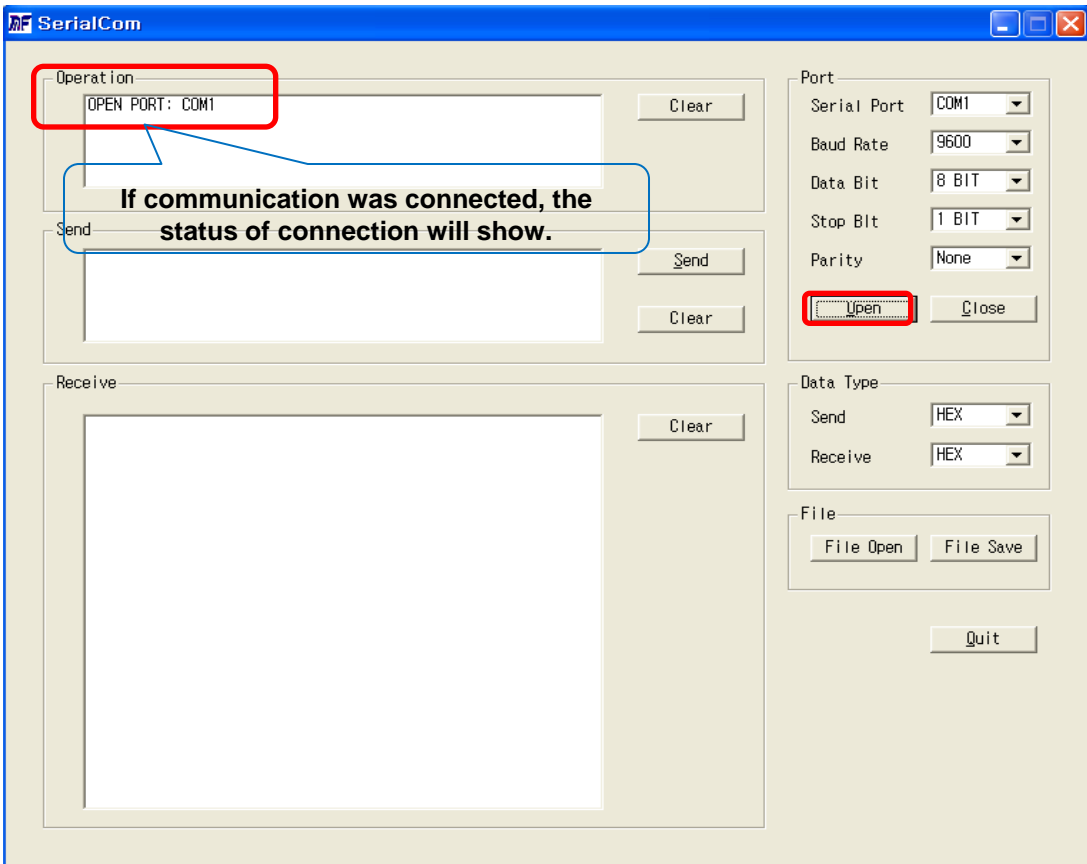
For example, let's check the output when inputting an EPSON model.

<when executing SerialCom program>



- setting up serial communication port and Baud Rate.

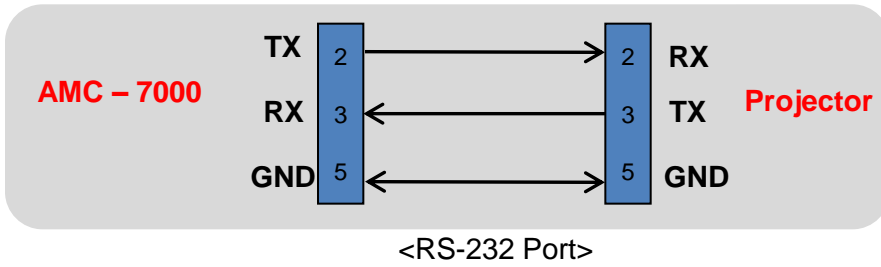
- communication => push the 'Open' button and communication can be connected.



- Whenever pushing a button on the 7 inch pad, each protocol value will be shown on the display.

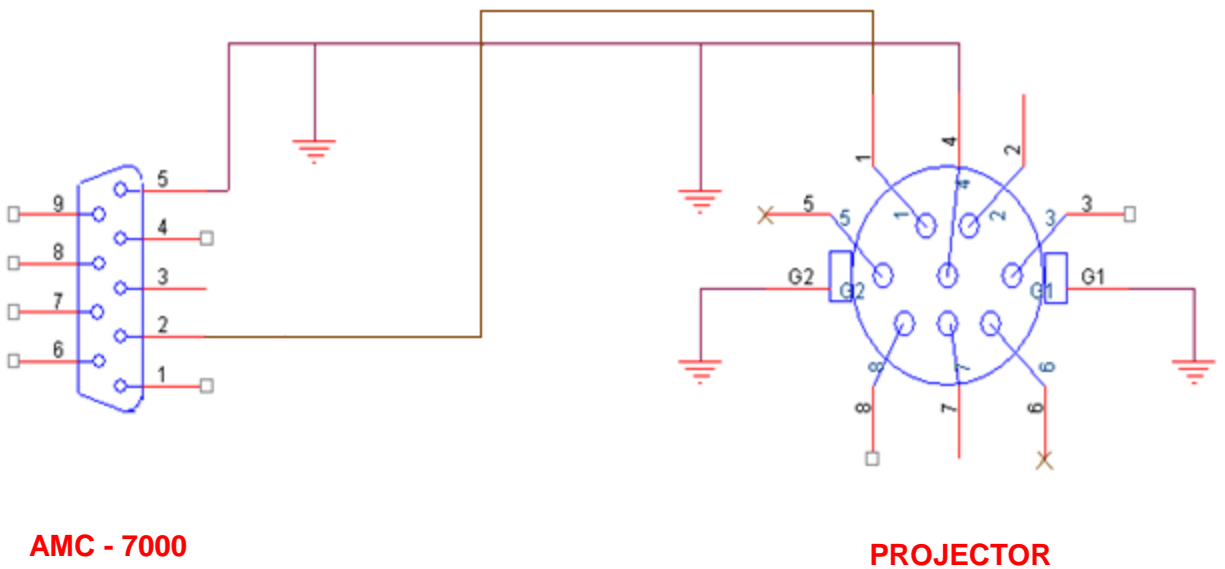
## ◆ PROJECTOR Connection

### ♣ 9 PIN D - SUB



#2 port is most commonly the RX port in most projectors.  
Sometimes #3 port is RX. (for example : Panasonic, BenQ 820)

### ♣ 8 PIN MINI DIN





## VIII. RFID card registration

## \* How to input the card

- ◆ Start the install file before executing the program.



vbruntimes  
VB Runtimes Pack, release 7 Setup  
<http://www.tnk-bootblock.co.uk>



Vb6ko.dll  
5,0,81,69  
Visual Basic Environment Internatio...

1. Install after executing the file 'vbruntimes.'

2. Paste the 'Vb6ko.dll' file into the C:\WINDOWS\system32 folder.

## \* Making folder.

- ◆ Create a new folder so that ID will be registered.

1. the program is composed of an .exe file and data file.



data  
텍스트 문서  
1KB



data2  
텍스트 문서  
1KB



data3  
텍스트 문서  
1KB



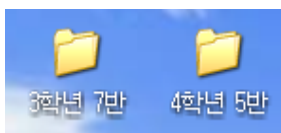
RFID aha  
WIZnet Corp.



sedss  
텍스트 문서  
1KB

\* All data which is executed in the program is saved in the data.txt.

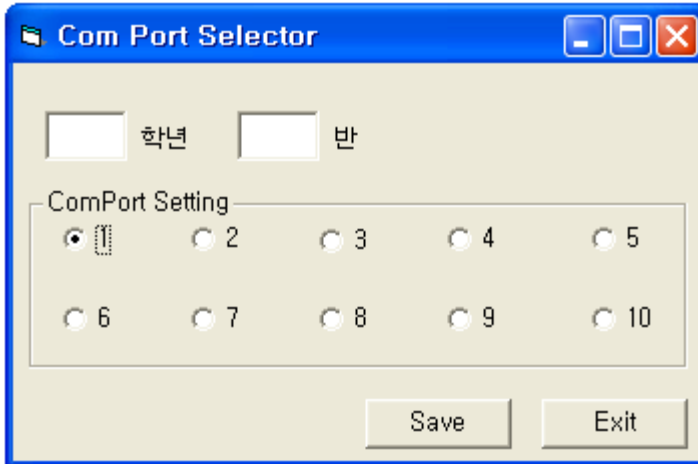
An error may occur if revising arbitrarily.



※ In this folder, the .exe file and data file were saved.

2. After making a new folder, insert the location to which the podium was installed, then paste the .exe file and data file.

## \* Executing the program

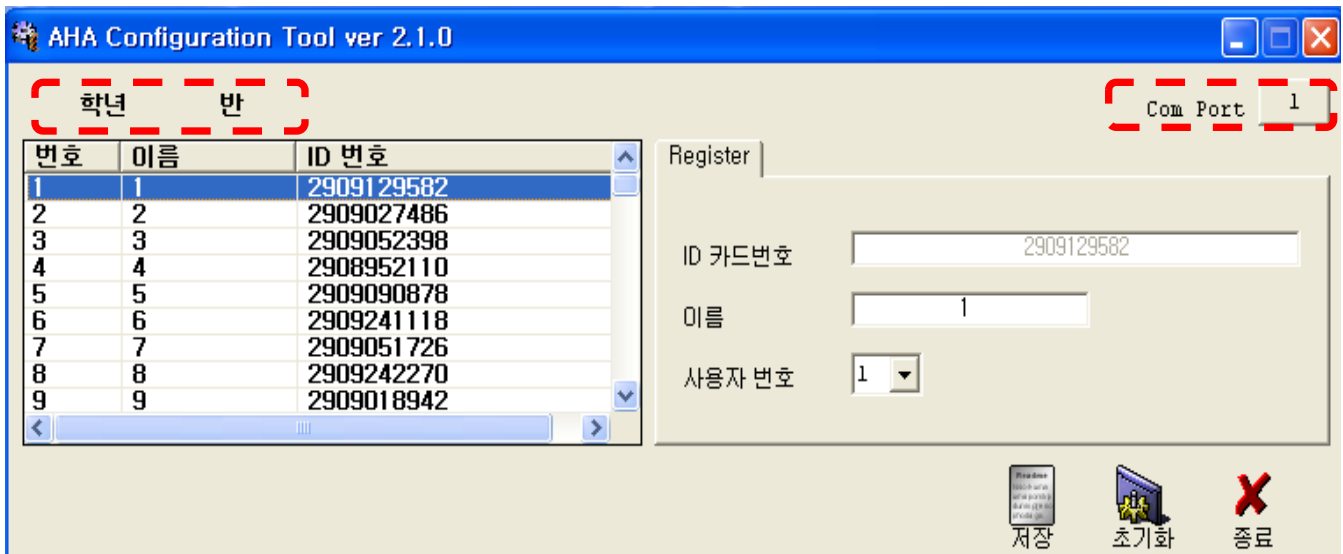


### ◆ After opening the program, appoint the Class and Comport Setting.

1. Input the relevant class and grade by using the keyboard.
2. After checking the connected Com Port, select the check point.
3. If input information is correct, push the 'SAVE' button.

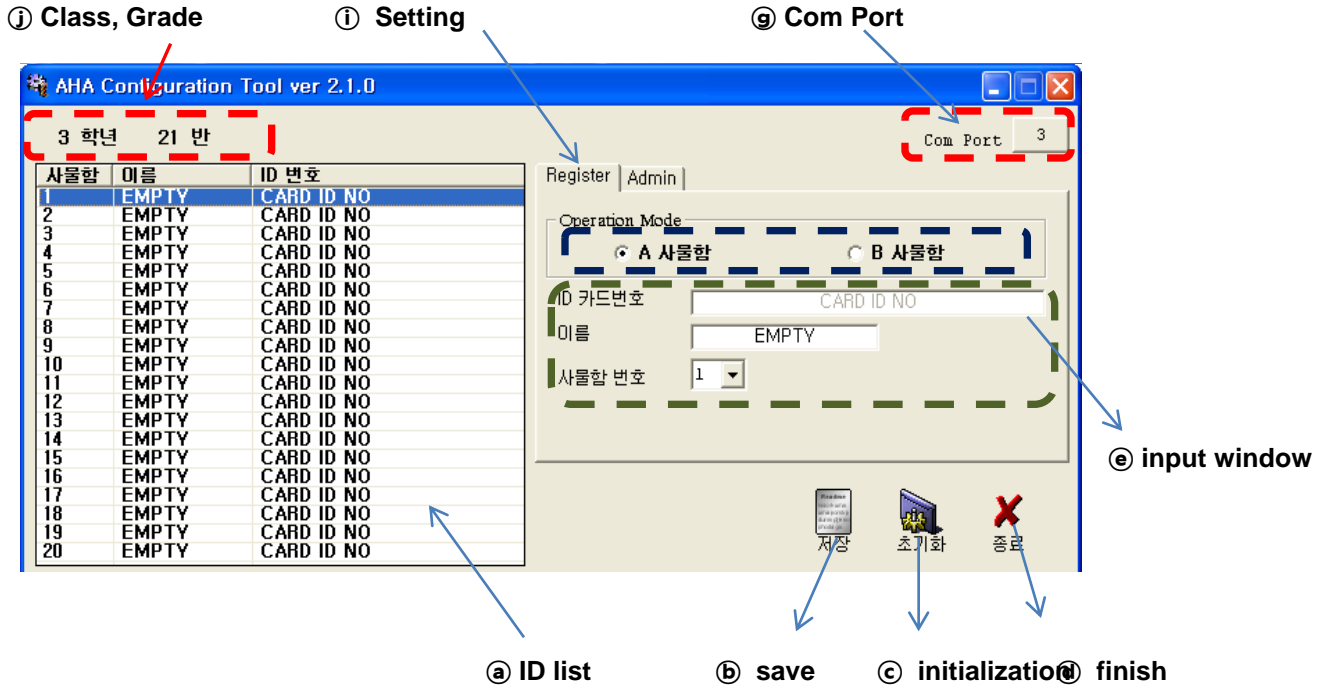
**\* If a runtime error occurs after pushing the 'Save' button, check the Com Port setting in the device manager.**

< execution screen >



## \*Using program

< program execution screen >



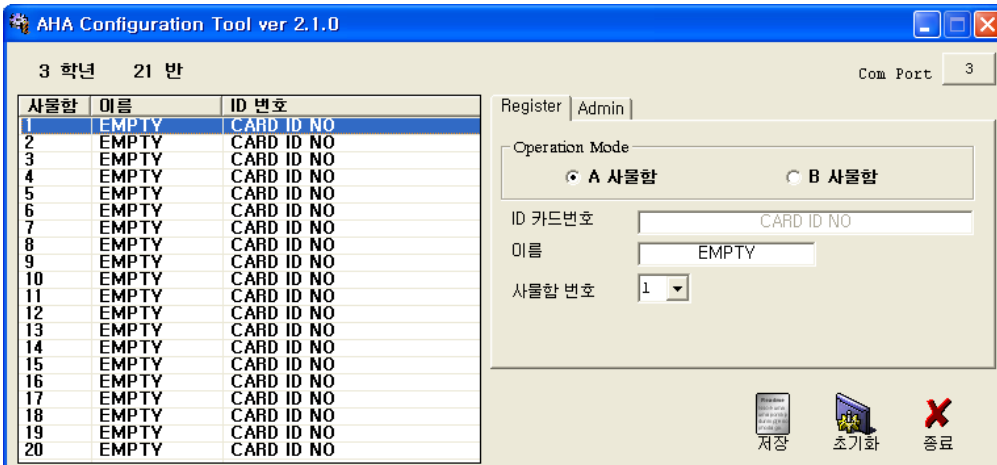
- ② ID list : When executing the program, the saved data will be printed.
- ③ Save : The data in the ID list will be saved when pushing save button.
- ④ Initialization : Deletes all data.
- ⑤ Finish : Closes the program.
- ⑥ Input window : When pushed, after inputting card user's name to be saved, ID list data will be changed.
- ⑨ Com Port : The Com Port currently selected.
- ① Setting : Tab for Register ID cards.
- ① Class, grade : Shows the class and grade currently in use.

## \* Register ID and Save

### Features and how to work

#### ◆ RF Reader

- ▲ This system works based on a 13.5Mhz RF signal.
- ▲ It is not compatible with cards of a different frequency.



#### ◆ How to save ID

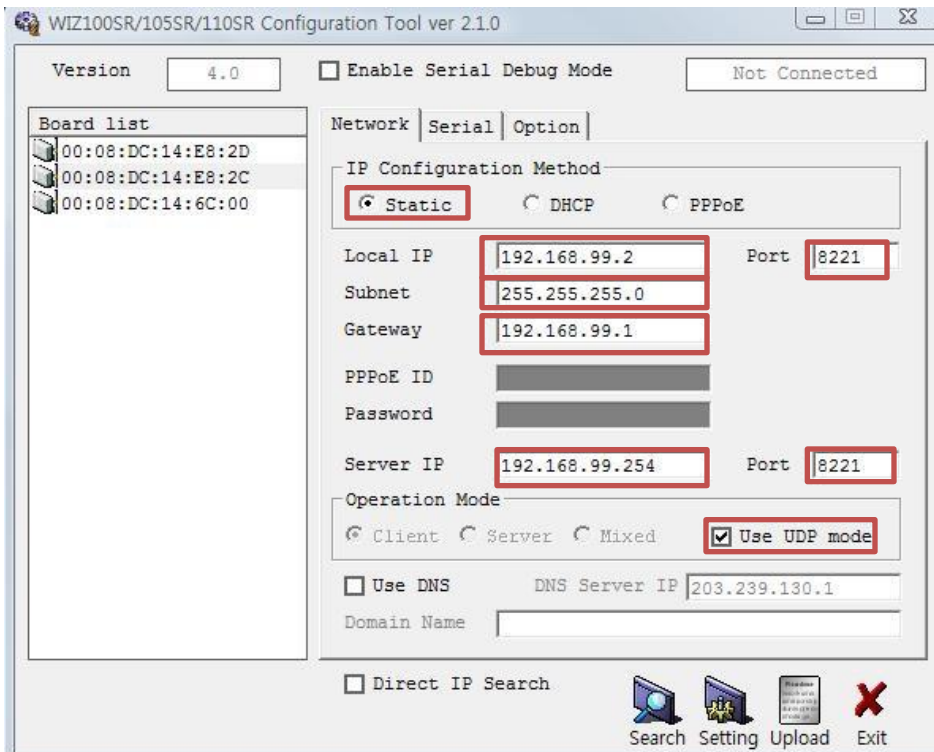
- 1) When clicking desired number to be saved in the ID list, the relevant information will appear in the input window.
- 2) When RF card contacts the reader, the ID card number can be entered into the input window.
- 3) Push the Enter button on the keyboard after inputting the user's name .
- 4) Input data will be changed at the time of pushing the Enter button, and then change the next input window.
- 5) For example, if inputting user #5, you can review your changes in the #6 input window.
- 6) After finishing all users' data input, push the 'save' button on the lower right side and exit.

**! Warning : If finishing the program without saving, user data must be input again.**

## **IX. Register RMS and user guide**



## < Wiznet Setting screen >



### ◆ IP Setting

- 1) Local IP / Gateway / Server IP are should be positioned on the same network.

XXX.XXX.XXX.□□□□

[X address should be positioned in the same area so that server and client can send and receive data smoothly.]

- 2) With UDP communication, it is possible to send and receive if the mutual port number is the same.

Upper Port : receives Client in Server.

Down Port : sends to server from Client.

- 3) Regardless of PC, when only connecting AMC, set 255.255.255.0

When connecting over 2 kinds of PC & AMC, set 255.255.0.0

PC setting

example) when setting the conditions of Wiznet IP 192.168.99.2 ~ 192.168.99.60, Server IP

setting will be 192.168.99.xxx or subnet should be 255.255.0.0

But , when subnet is 255.255.0.0, it is impossible to locate PC's internet.

If server's IP is certified IP or previously used one, it can receive data from

equipment, but when the data will be sent from the PC to equipment, it can not guarantee the exchange of data.

< Program execution screen >

Podium Control Application Ver1.0

RMS Client Listing

Connect      Sort      list Redrow      Server IP: 192.168.99.254

Class Room	IP/Address	Port	Projector	Screen	Status	update Time
Room_44	192.168.99.45	8264	-	-	Not Connected	-
Room_45	192.168.99.46	8265	-	-	Not Connected	-
Room_46	192.168.99.47	8266	-	-	Not Connected	-
Room_47	192.168.99.48	8267	-	-	Not Connected	-
Room_48	192.168.99.49	8268	-	-	Not Connected	-
Room_49	192.168.99.50	8269	-	-	Not Connected	-
Room_50	192.168.99.51	8270	-	-	Not Connected	-
Room_51	192.168.99.52	8271	-	-	Not Connected	-
Room_52	192.168.99.53	8272	-	-	Not Connected	-
Room_53	192.168.99.54	8273	-	-	Not Connected	-
Room_54	192.168.99.55	8274	-	-	Not Connected	-
Room_55	192.168.99.56	8275	-	-	Not Connected	-
Room_56	192.168.99.57	8276	-	-	Not Connected	-
Room_57	192.168.99.58	8277	-	-	Not Connected	-
Room_58	192.168.99.59	8278	-	-	Not Connected	-
Room_59	192.168.99.60	8279	-	-	Not Connected	-
Room_60	192.168.99.61	8280	Off	Up	Connected	15:36:40

Remote Control

Projector: On      Screen: Down

Put:

All Control Off: Projector / Off, Screen / Off

All Control On: Projector / On, Screen / On

User Setting

Add: Room Name  IP/Address  Port

Modify: Projector  Screen

Delete

## X. Firmware Update

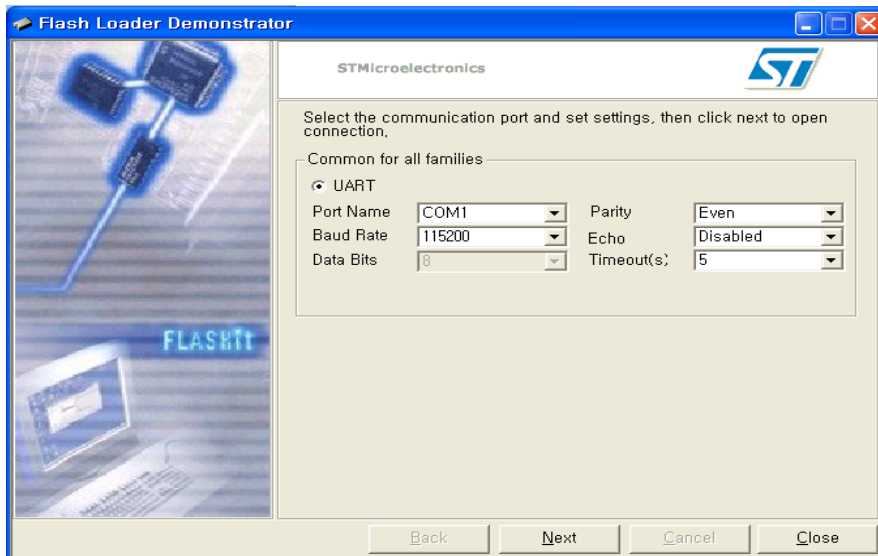
## 1. Firmware Update.

Before updating, you must switch the Controller (AMC-7000) to 'UPDATE' mode. On the back of the Controller, on the bottom right side you will see a switch named 'NOR./UPDATE.' Switch this to 'UPDATE.' Once you have done this, reset the power.

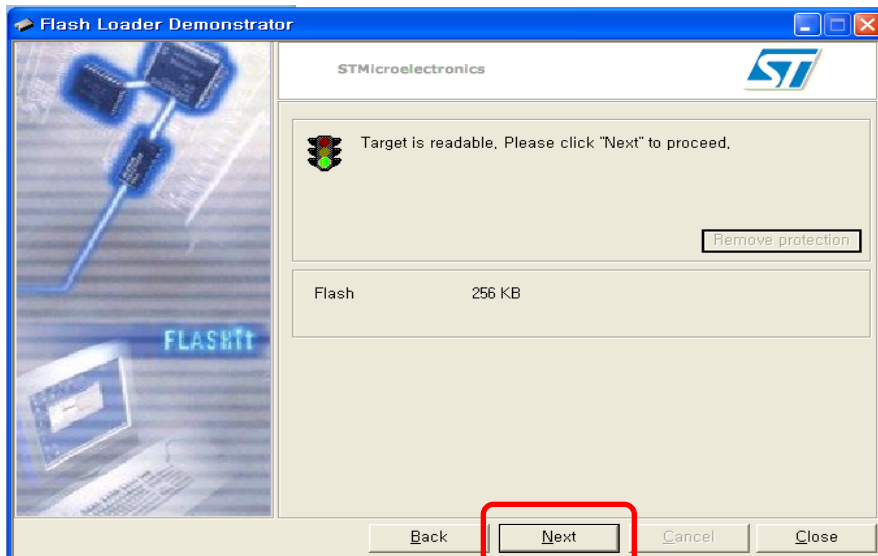


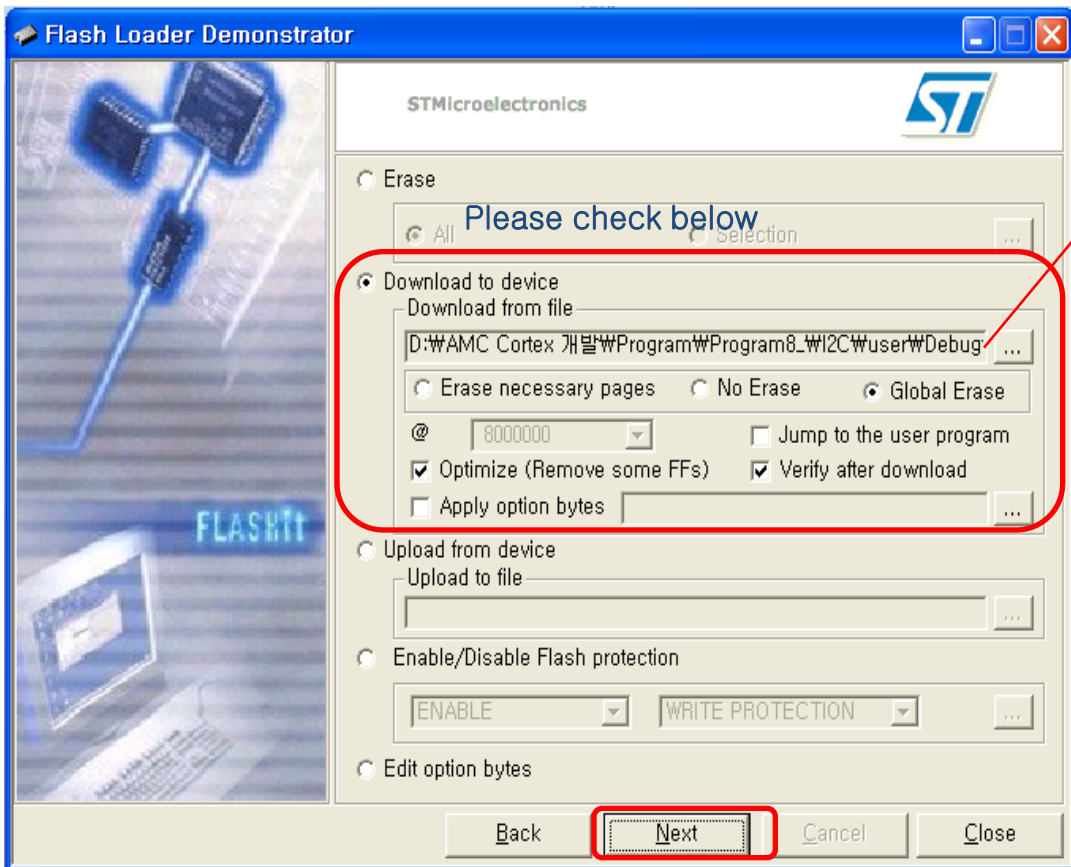
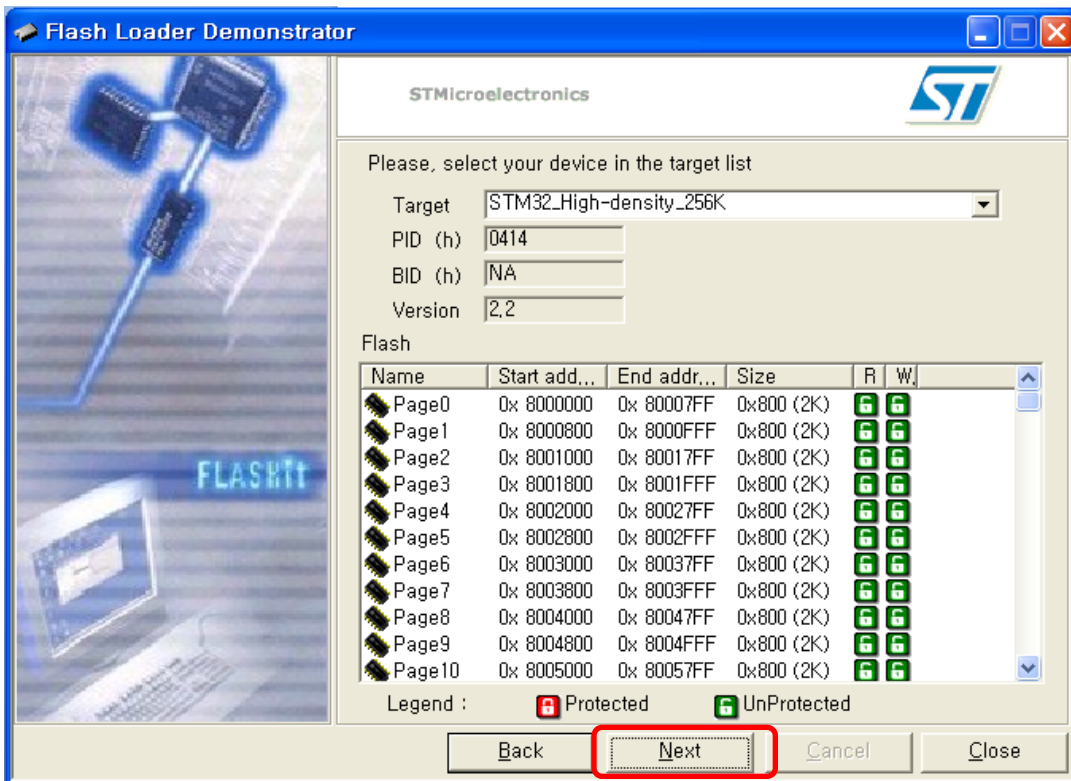
### Connection.

Please connect from the PC to the port labeled 'TOUCH.'

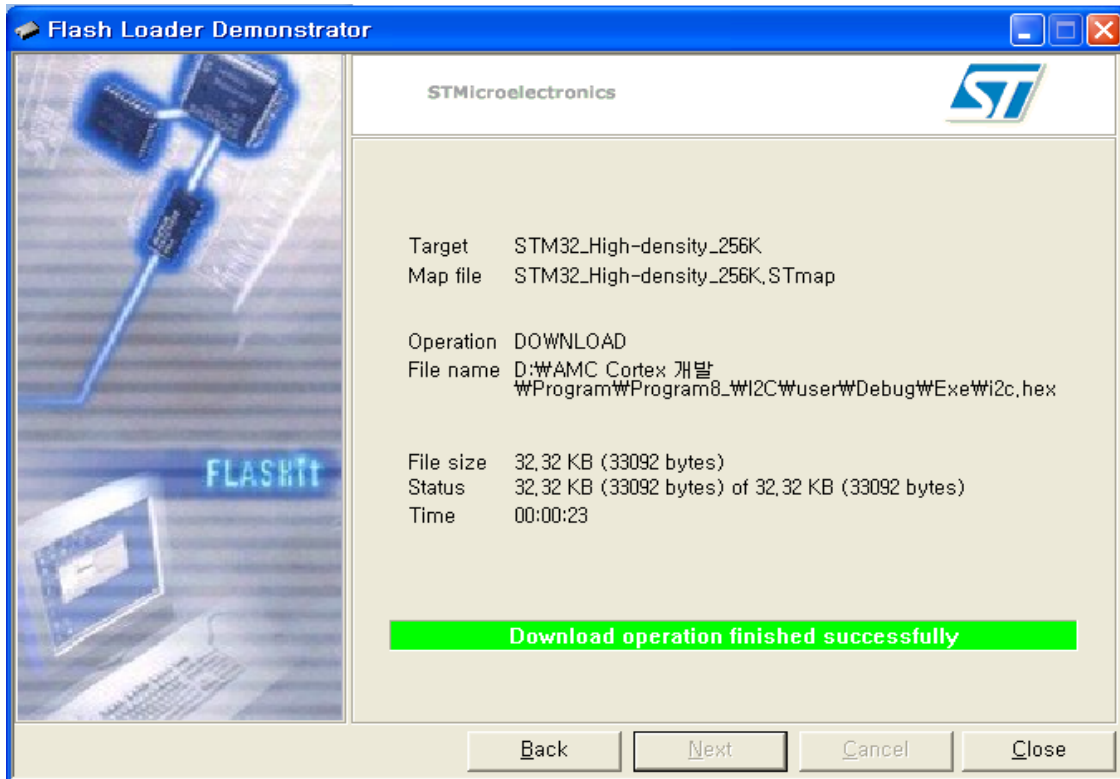


Check that the Com Port is connected, and press **NEXT**.





Load the  
HEX File



After the program finishes uploading, please press the 'Close' button,

You must move to the 'NOR./UPDATE' switch on the Controller back to the 'NOR.' position. Finally, reset the power.

## XI. Digital Podium Specification(ELF-19D)

Composition : ① 19"LCD Tablet Monitor, ② 19" LCD Monitor ③ BODY ④ Main Controller ⑤ Power Distributor  
 ⑥ Digital Amplifier ⑦ Wireless Microphone ⑧ Gooseneck Microphone ⑨ 7" LCD Controller  
 ⑩ Laptop Interface Module ⑪ RFID Module ⑫ RMS Module

① 19"LCD Tablet Monitor (Main)		AHALTM-192W
LCD	Resolution	1366 x 768
	View Area	409.8(H) x 230.4(V) mm – 18.5 inch
	Luminance ,White	300 cd/m <sup>2</sup>
	Contrast Ratio	1000:1 (typ.)
	Viewing Angle	160° (H/V)
	Lamp Life Time	20,000 Hrs (min )
Tablet	Technology	Electromagnetic Resonance
	Detectable Height	3~10mm
	Position Report Rate	138pps
	Pressure Resolution	1024 Level
② 19" LCD Monitor (Sub)		ELF-19M
LCD	Resolution	1366 x 768
	View Area	409.8(H) x 230.4(V) mm – 18.5 inch
	Luminance ,White	300 cd/m <sup>2</sup>
	Contrast Ratio	1000:1 (typ.)
	Viewing Angle	178° (H/V)
	Lamp Life Time	30,000 Hrs (min )
③ BODY		
	Sliding cover	Opening/Closing the cover easily
	Soft wheels	Moving podium with convenience
	Adjusting Monitor Angle system (Actuator)	User can set monitor angle as user's want
	Dimension	1,130W x 659H x 750D
④ Multimedia Controller		AMC-7000
VGA	VGA Inputs	VGA X 2
	VGA Outputs	VGA X 2
	Signal Type	VGA, SVGA, XGA, QXGA
	Max. Resolution	2048 X 1536
	Pixel Frequency	440MHz
Video	Composite Inputs	Video X 2
	Composite Output	Video X 1
	Bandwidth	100MHz
	Return loss	-30dB; 5MHz
Control	Switch Control Ports	X 2
	Screen Relay Controls	X 2
	RFID Control	X 1
	Serial RS-232 Ports	X 4
	RMS Control Module	X 1
Other	Power(Adaptor)	12V, 4A
	Weight	1Kg
⑤ Power distributor		
	AC Outputs	6CH (MAX 150W)
	DC Outputs	24V/5A x 1, 12V/4A x2, 15V/3A x1, 5V/2A x1
	Input	AC Input 100 - 240V,50-60Hz 10A
	Dimensions	480(W) x 88(H) x 298(D) mm
	Weight	5kgs

<b>⑥ Digital Amplifier</b>		<b>AMX-3030D</b>
Output Power (Max)	280W 4Ω ( 140W + 140W) Stereo	
Microphone Inputs	8~20mV (3 Input)	
PC/Laptop Inputs	70mV (2 Input)	
Audio Inputs	70mV (2 Input)	
Audio Outputs	250mV (3 Output)	
Frequency Response	25Hz ~ 20KHz	
AC Power	220V to 240V AC, 50/60Hz	
Dimensions	88(H) x 482(W) x 223(D) mm	
Weight	4.8 Kg	
<b>⑦ Wireless Microphone</b>		<b>AWM-U82</b>
Frequency ranges	740MHz ~ 752MHz	
Type	Hand and Belt	
Simultaneous Channels	32CH	
Oscillation mode	PLL synthesized	
Frequency stability	±0.005% (-10~50°C)	
Frequency response	40Hz ~ 18KHz	
THD (1KHz)	<0.9%	
Signal to Noise ratio	100dB	
Power consumption	24W	
Dimensions	480W x 40H x 220D	
Weight	1.1kg	
<b>⑧ Gooseneck Microphone</b>		
Polar Pattern	Cardioid	
Frequency Response	150Hz ~ 17KHz	
Sensitivity (0dB=1V/1Pa, 1KHz)	-46dB	
Output Impedance	200 ohm Balanced	
Weight(g)	200	
<b>⑨ 7" LCD Controller</b>		
Resolution	800 x 480	
View Area	154(H) x 92(V) mm – 7 inch	
Interface	RS-232	
Touch Type	Resistive	
Operate System	Win CE5.0	
Power	5V, 1A	
<b>⑩ Laptop Interface Modules</b>		VGA x1 / Tablet USB x1 / USB x2 / Sound In x2 Sound Out x2 / Power x1
<b>⑪ RFID Module</b>		
Frequency	13.56 MHz	
Active Range	0 ~ 20 mm	
Interface	RS – 232C	
Second Time Delay	500ms	
Antenna	Built -In	
Buzzer	Built -In	
Power	5 ~ 12V DC 1A	
Dimensions	42(W) X 80(H) X 19(D) mm	
<b>⑫ RMS Module</b>		
Network	Interface	10/100 Base-T Ethernet
	Protocol	TCP,UDP,IP,ARP,ICMP,MAC,DHCP
	Flow Control	None, XON/XOFF ,RTS/CTS
Serial	Serial Format	8 Databit, N Parity, 1 Stop Bit
	Speed	1200bps to 230Kbps



## XII. Self-Service, Warranty

### Digital podium checking point

If user find the breakdown, refer to the below sheet and countermeasure accordingly.

Problems	Common solutions	remark
No power.	<ul style="list-style-type: none"> <li>✓ Check that power cable is connected to the socket.</li> <li>✓ Check if podium's power switch is on</li> <li>✓ Check if monitor's power is connected.</li> <li>✓ Check the switch of socket is power on.</li> </ul>	
No image on the screen	<ul style="list-style-type: none"> <li>✓ Check that the source selection choice is set correctly</li> <li>✓ Check that the input's cable is connected correctly</li> <li>✓ Check that the tablet monitor's VGA input is connected</li> <li>✓ Check that the output's cable is connected correctly</li> </ul>	
The color is strange	<ul style="list-style-type: none"> <li>✓ Check if the computer cable's pins are bent or broken.</li> <li>✓ Check monitor's brightness and contrast ratio.</li> </ul>	
Microphone does not work correctly.	<ul style="list-style-type: none"> <li>✓ Check the battery of the microphone</li> </ul>	
No sound	<ul style="list-style-type: none"> <li>✓ Check if the volume is set at the lowest level.</li> <li>✓ Check that the input and output are correctl.</li> <li>✓ When setting as laptop computer, the input &amp; output of sound inside laptop will be not done.</li> </ul>	
Do not control the projector.	<ul style="list-style-type: none"> <li>✓ Check Protocol input was done correctly</li> <li>✓ check the signal from RS – 232 Port was come out.</li> <li>✓ check the cable connection was done correctly</li> <li>✓ Refer to Protocol Input checking point...</li> </ul>	

**! Warning : do not disassemble by yourself because there are high voltage inside the product.**





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Ver 1.0