

Operation Manual

(Program Installation)

Dante Amplifier Controller **DAC-288**



interM

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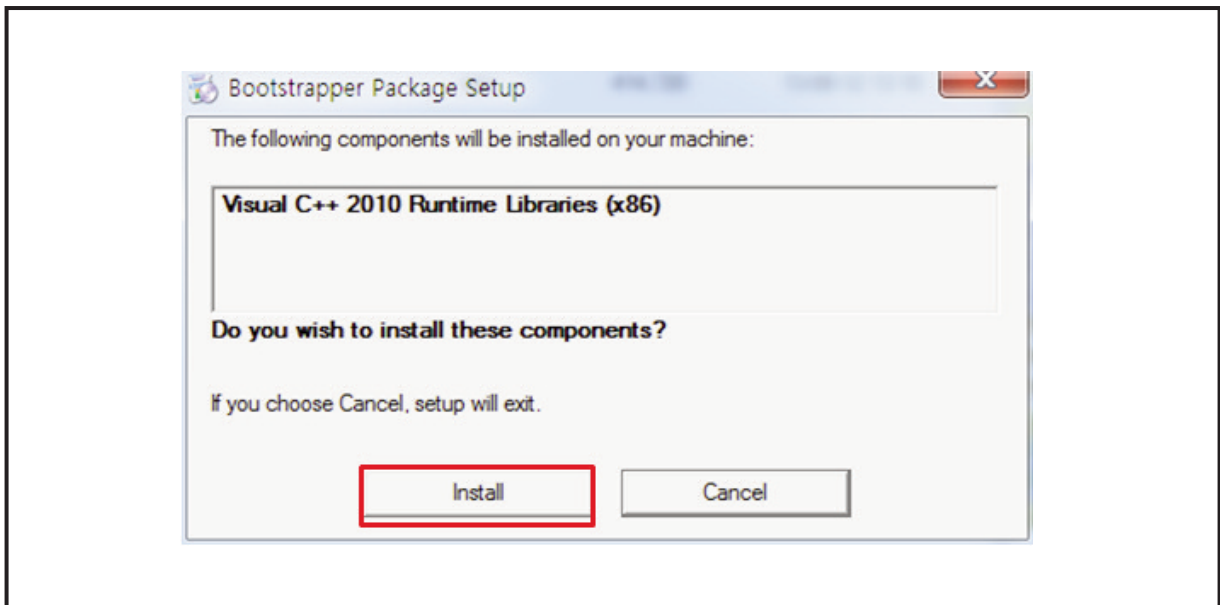
Program Installation

1. Installation for basic program

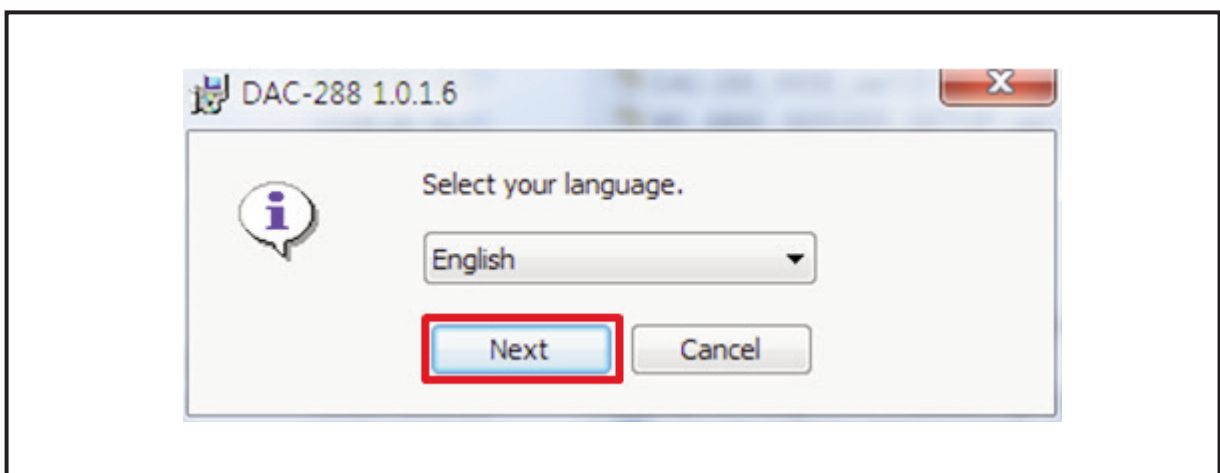
(1) Run 'DAC-288_SETUP_ver1.0.0.0.exe'.

From the following screen click [Install] button.

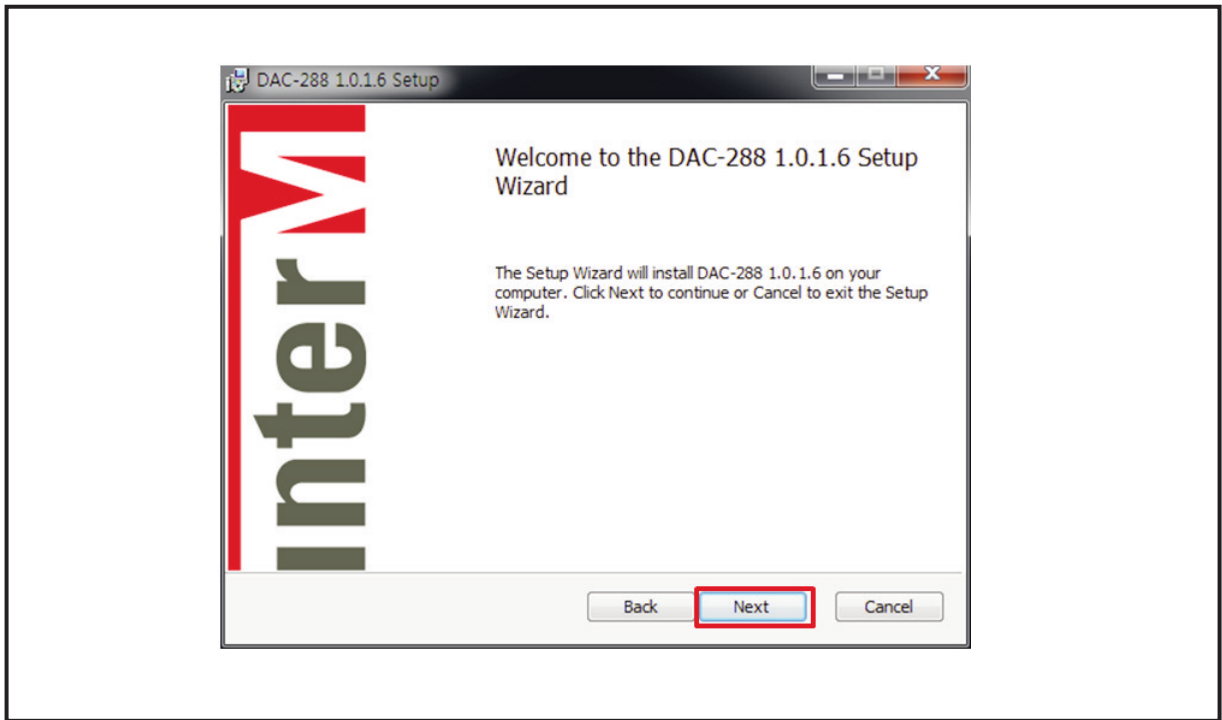
Note: If Visual C++ Runtime Libraries is already installed, there will be not a pop up screen.
If so, proceed to step 2.



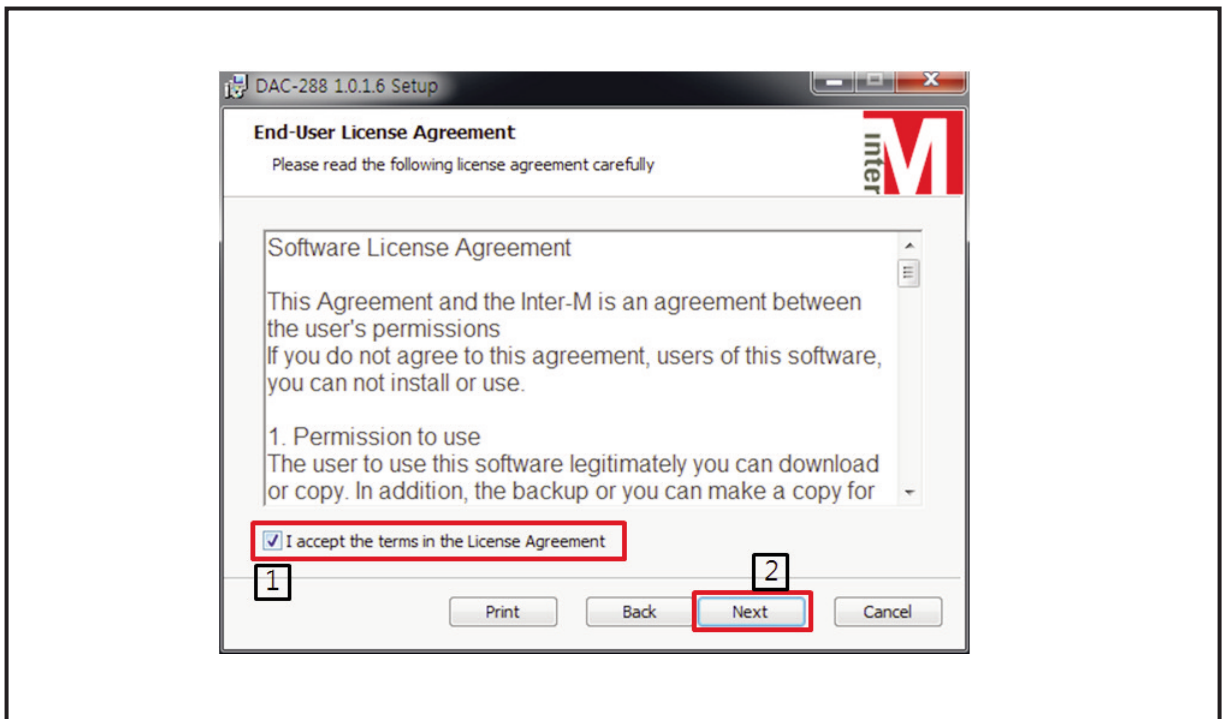
(2) Setup Language screen. Click [Next] button.



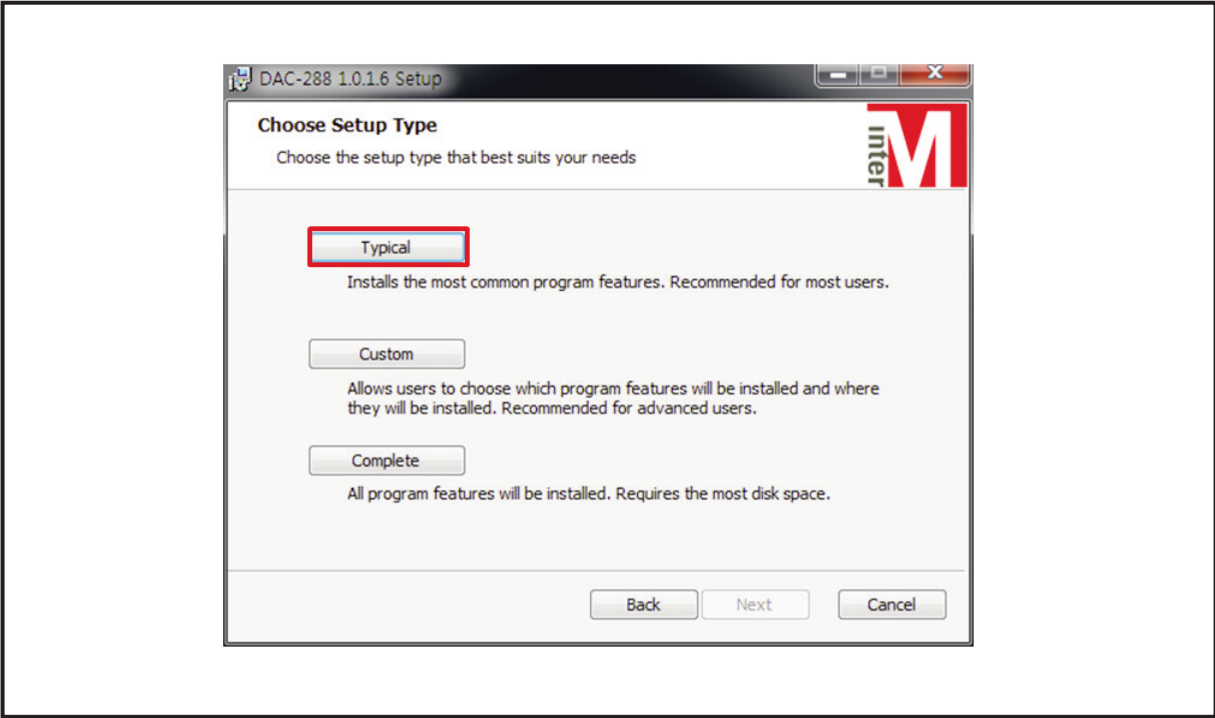
(3) Set up Screen. Click [Next] button.



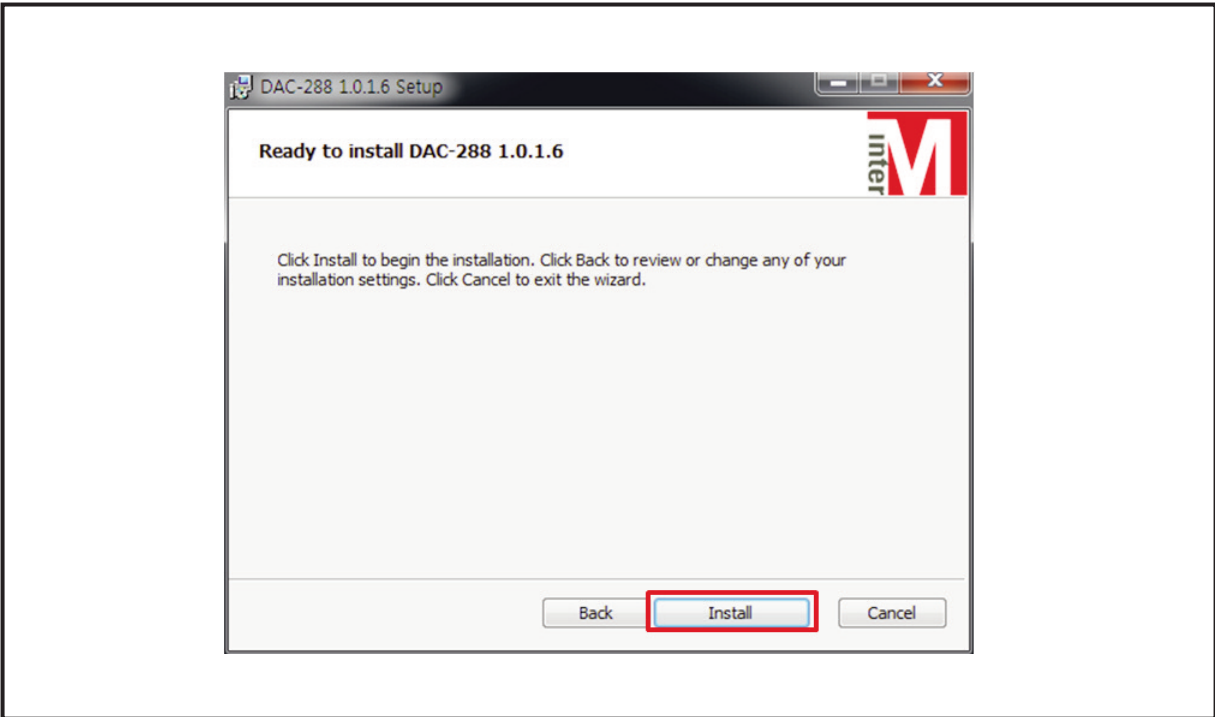
(4) End-User Agreement Screen. Check [I accept] and click [next] button.



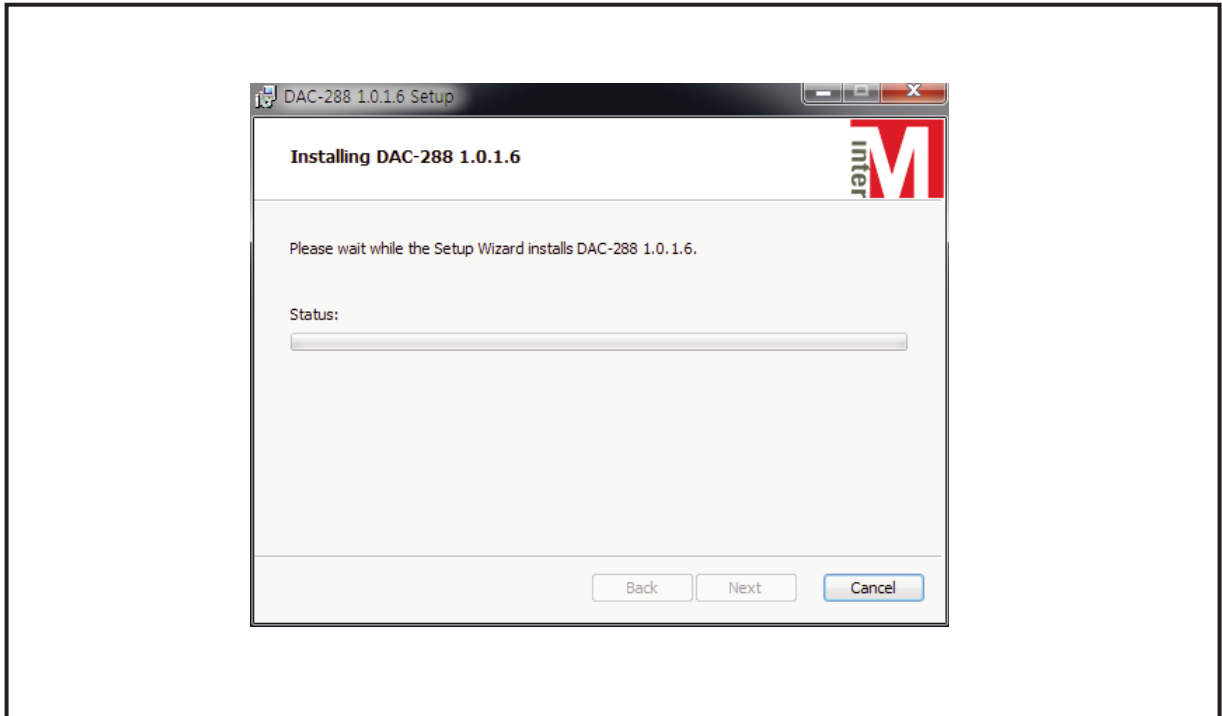
(5) Setup Type Screen. Select [Typical] and click [Next] button.



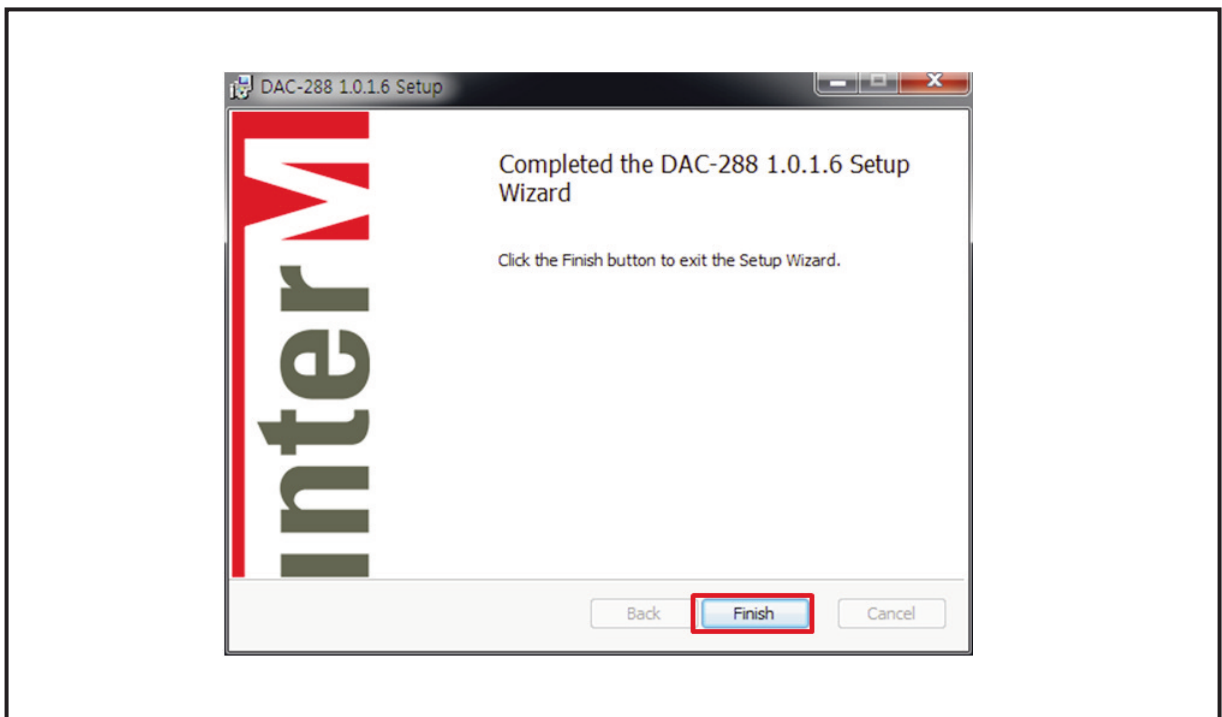
(6) Ready to Install. Click [Install] button.



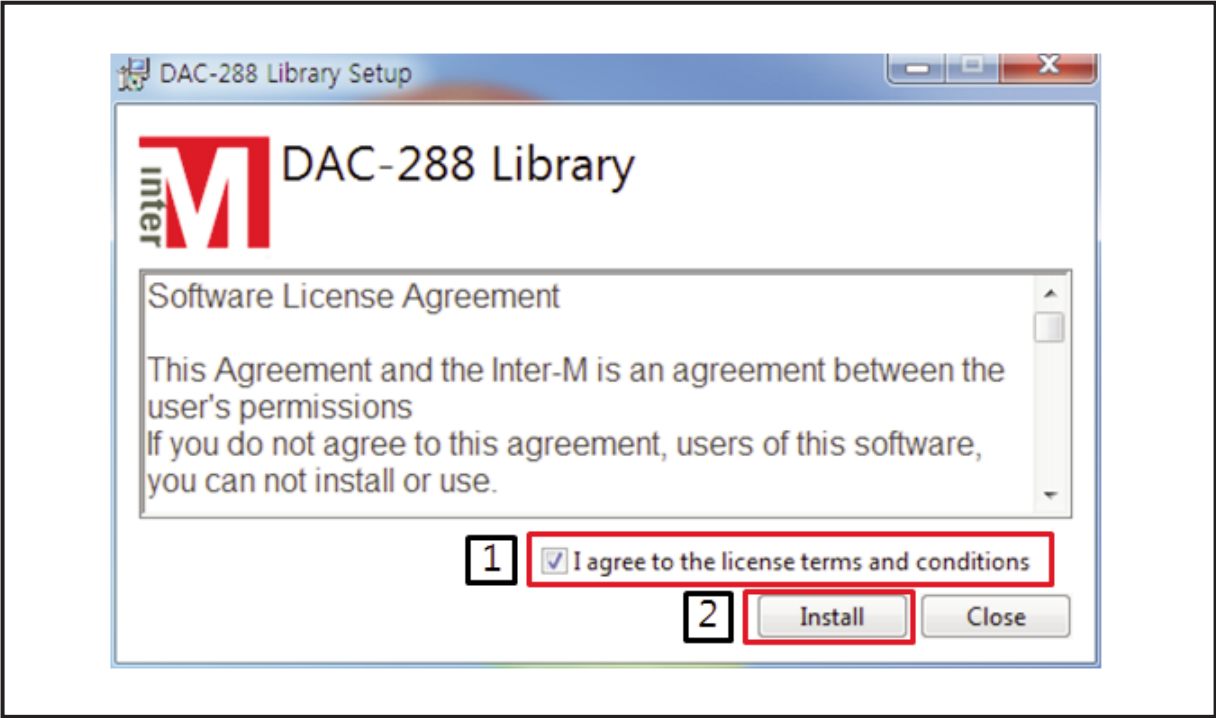
(7) Installing. Please wait until install is completed.



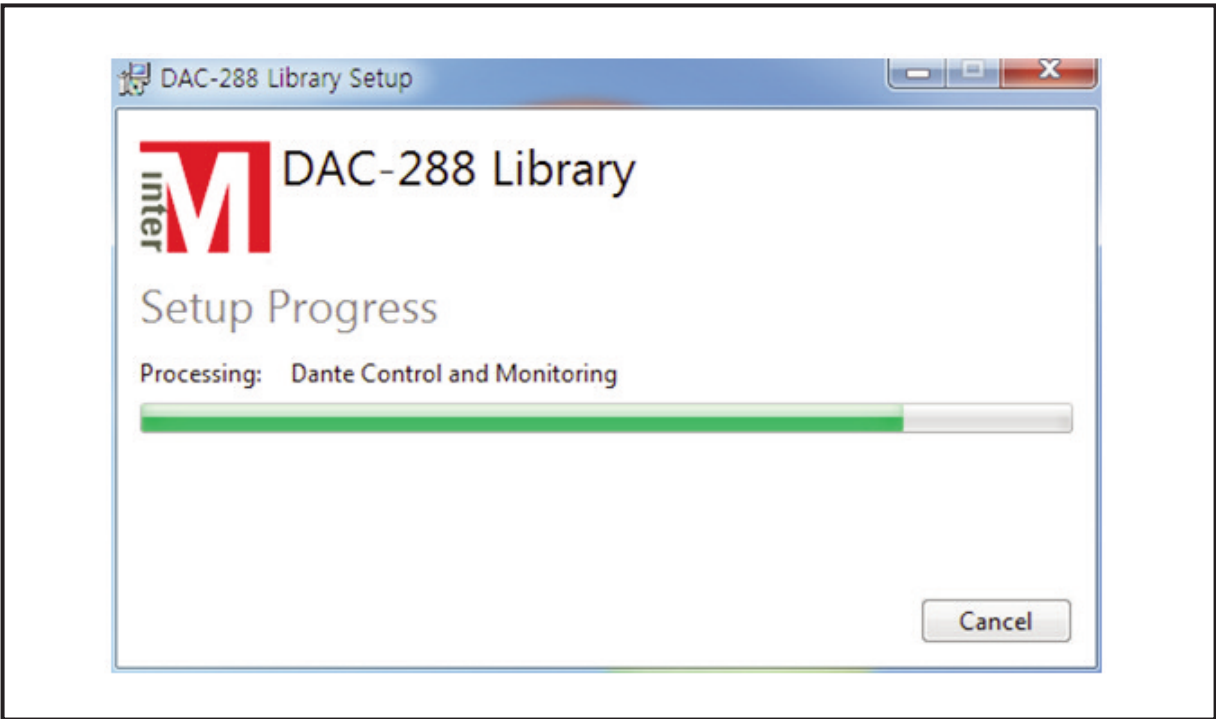
(8) Completed. Click [Finish] button.



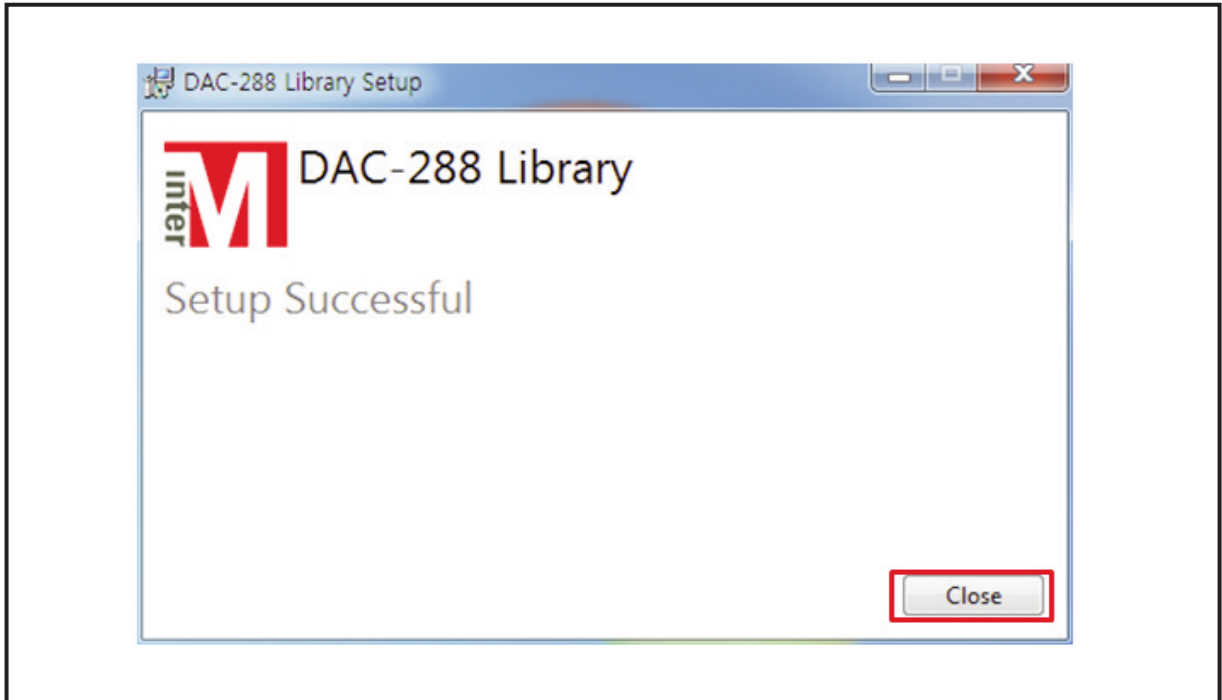
(9) DAC-288 Libraries Setup Screen. Check No.1 checkbox and click No.2 [Install].



(10) Processing. Please wait till installation is completed.



(11) Once installation is completed, click [Close] button and restart the system.



2. Program Installation for Control

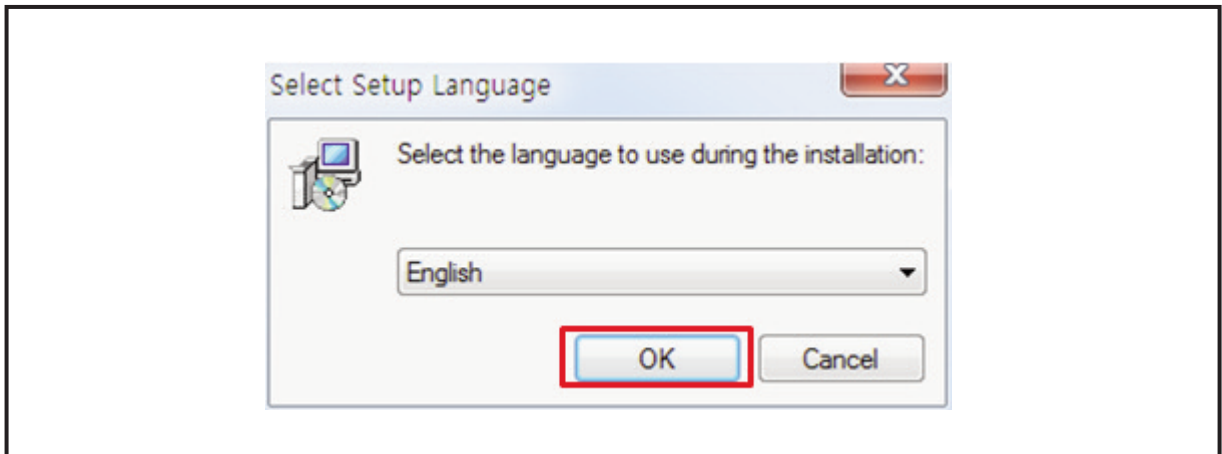
DAC-288 can set up name for shared area mutually between each equipment of DAC-288. To do that, control program should be installed. It is okay to skip if the installation is not for control.

1) Once installation for DAC-299 program is completed, move to installation folder.

Move to data\server\firebird_2.5 folder of installation folder and run Firebird-2.5.2.26540_0_Win32.exe.

ref) Installation folder is C:\Program Files\Inter-M\DAC-288 for 32bit OS and C:\Program Files (x86)\Inter-M\DAC-288 for 64 bit OS.

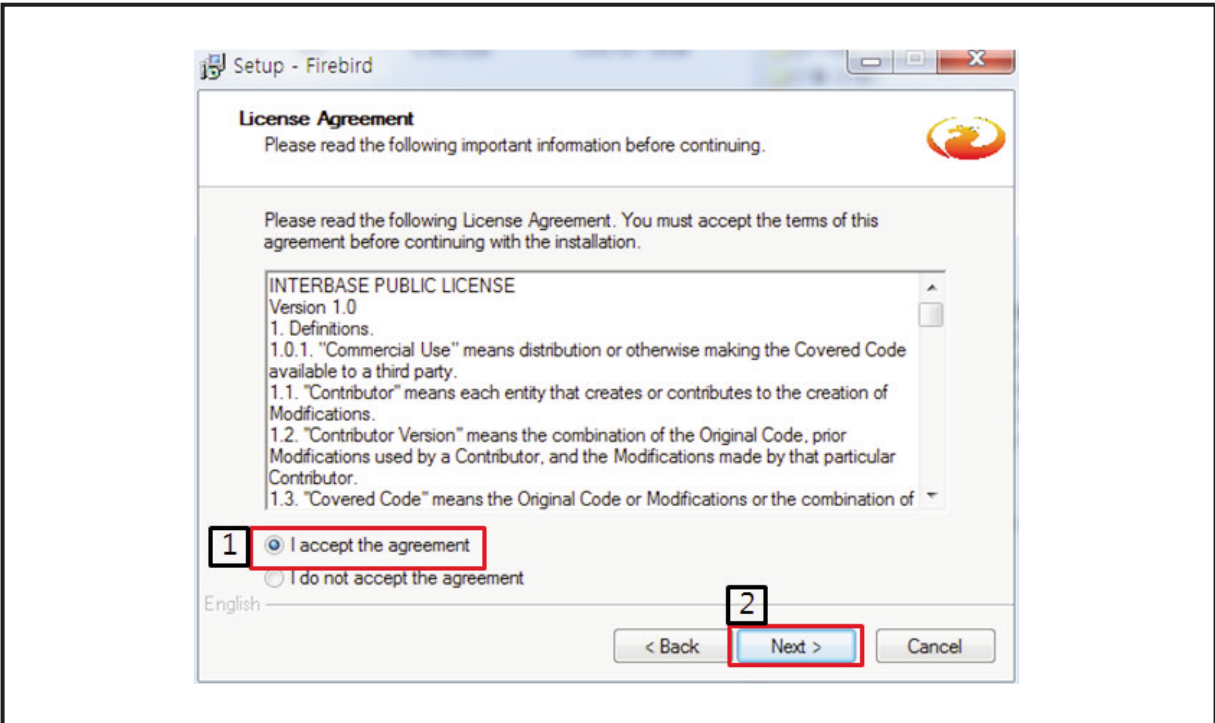
2) Language Setup Screen. Select [English] and click [OK]



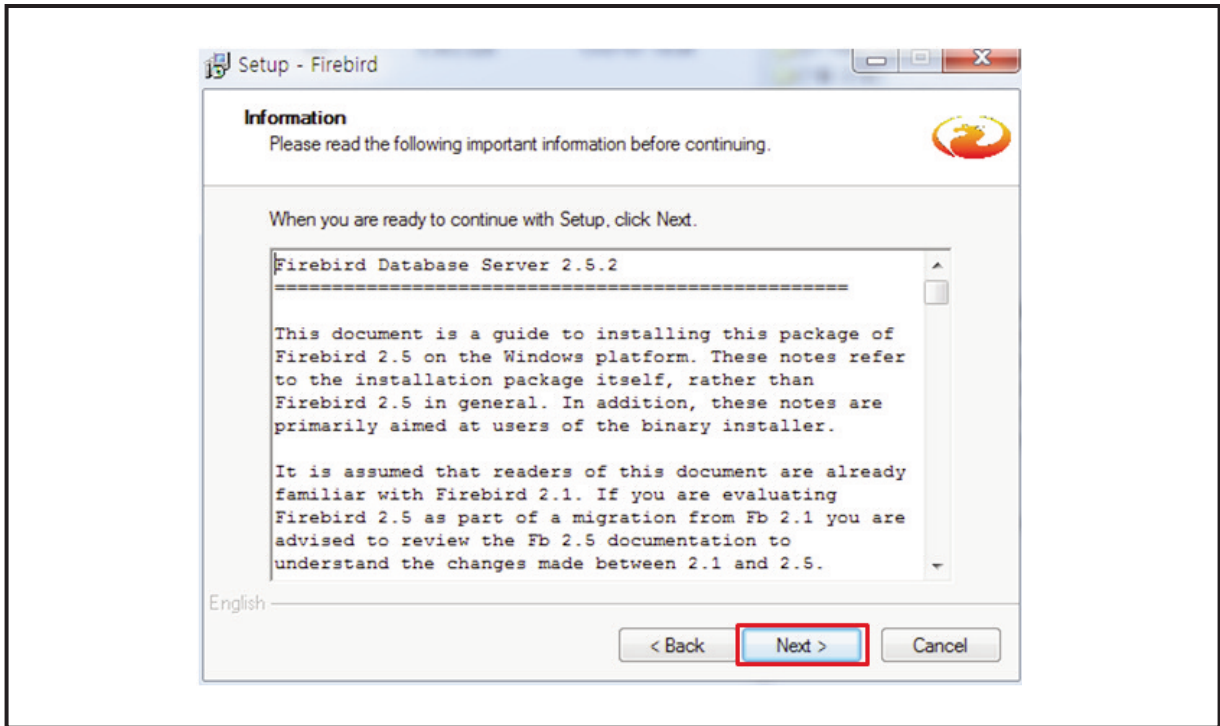
3) Installation Start Screen. Click [Next] button.



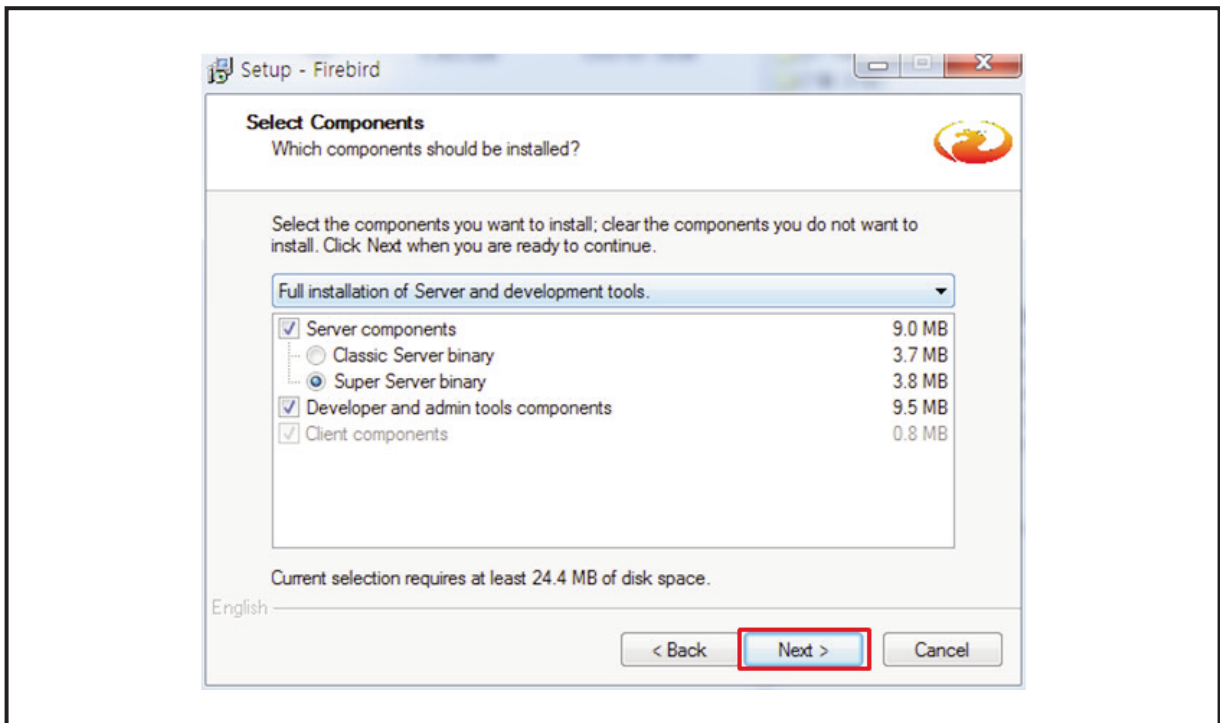
4) End-User-Agreement Screen. Check [I accept the agreement] and click [Next] button.



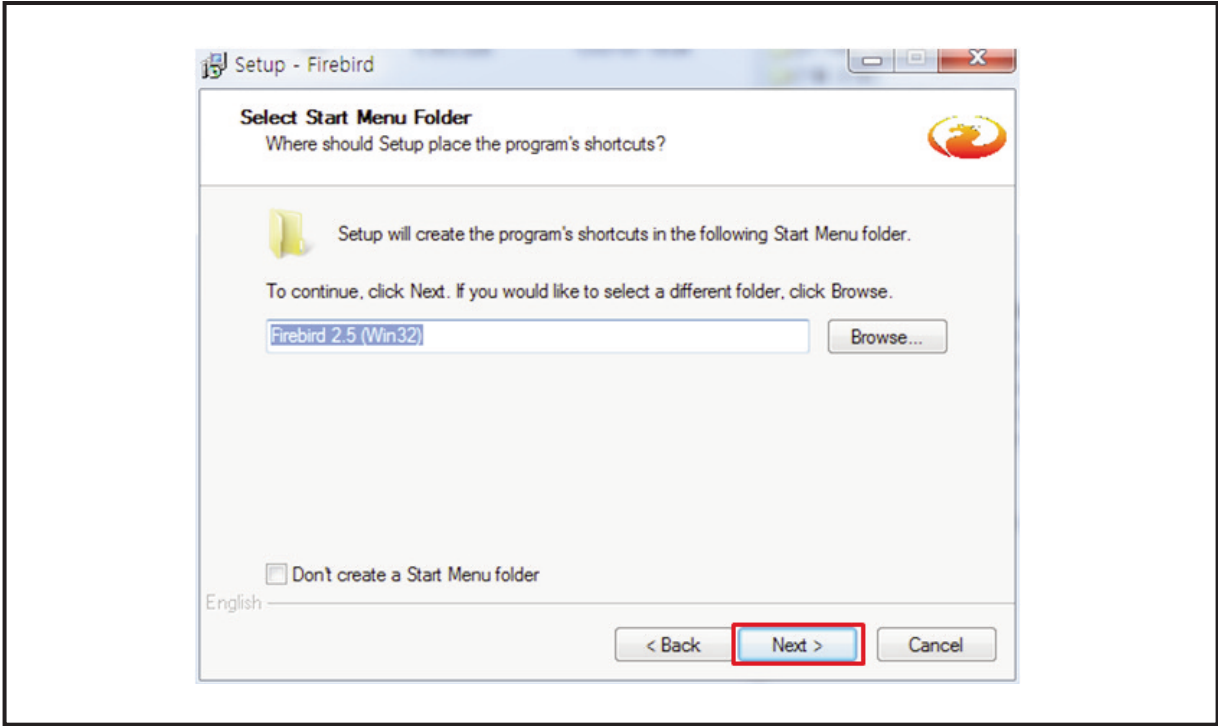
5) Information Check Window. Click [Next] button.



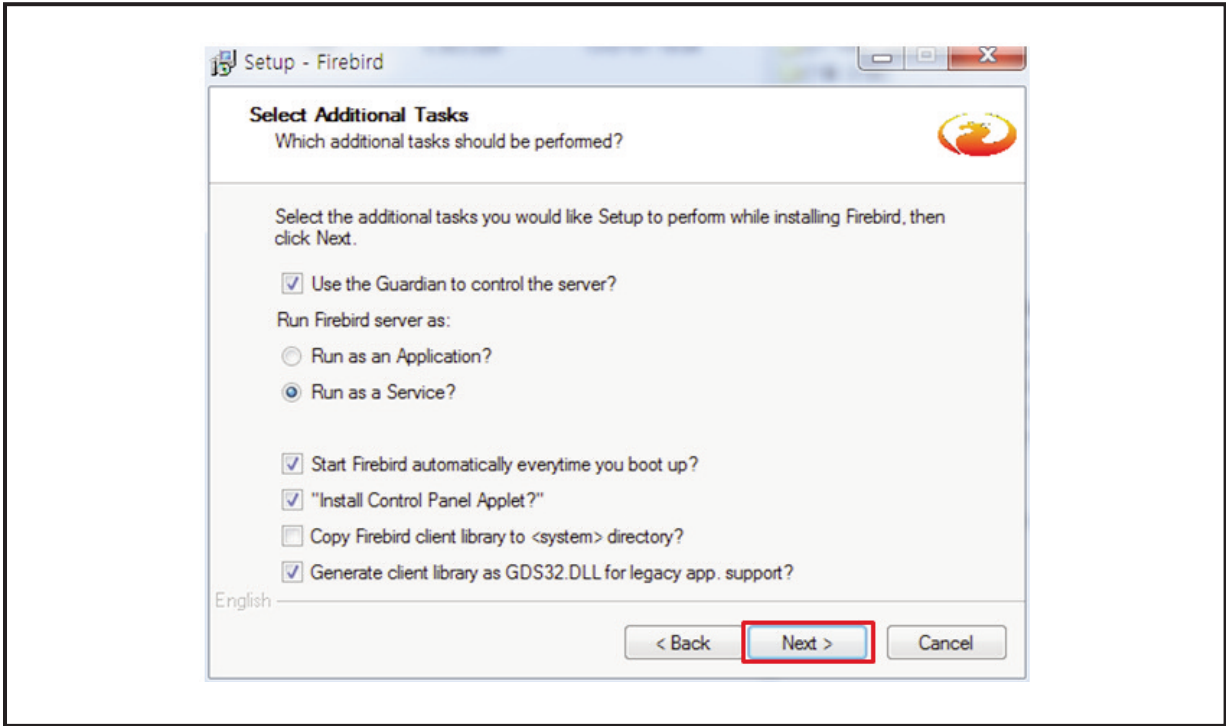
6) Window to Select Components. Click [Next] to keep this set up.



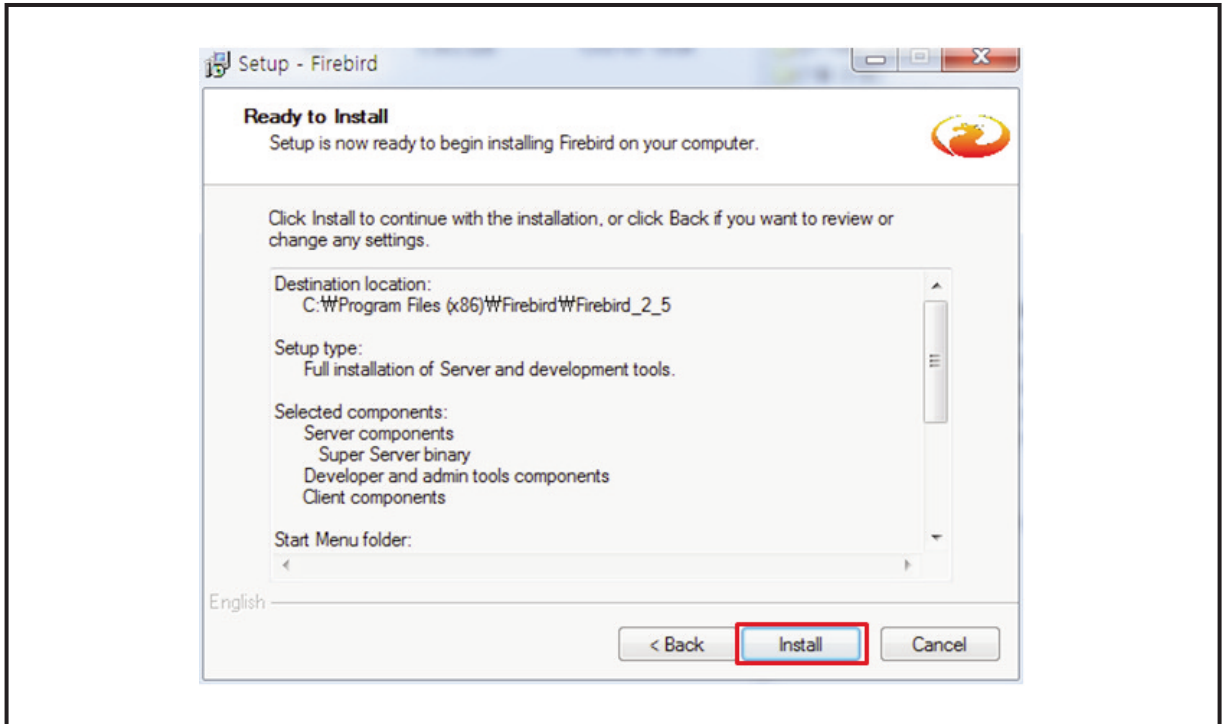
7) Screen to Select Start Menu Folder. Click [Next] to keep this set up.



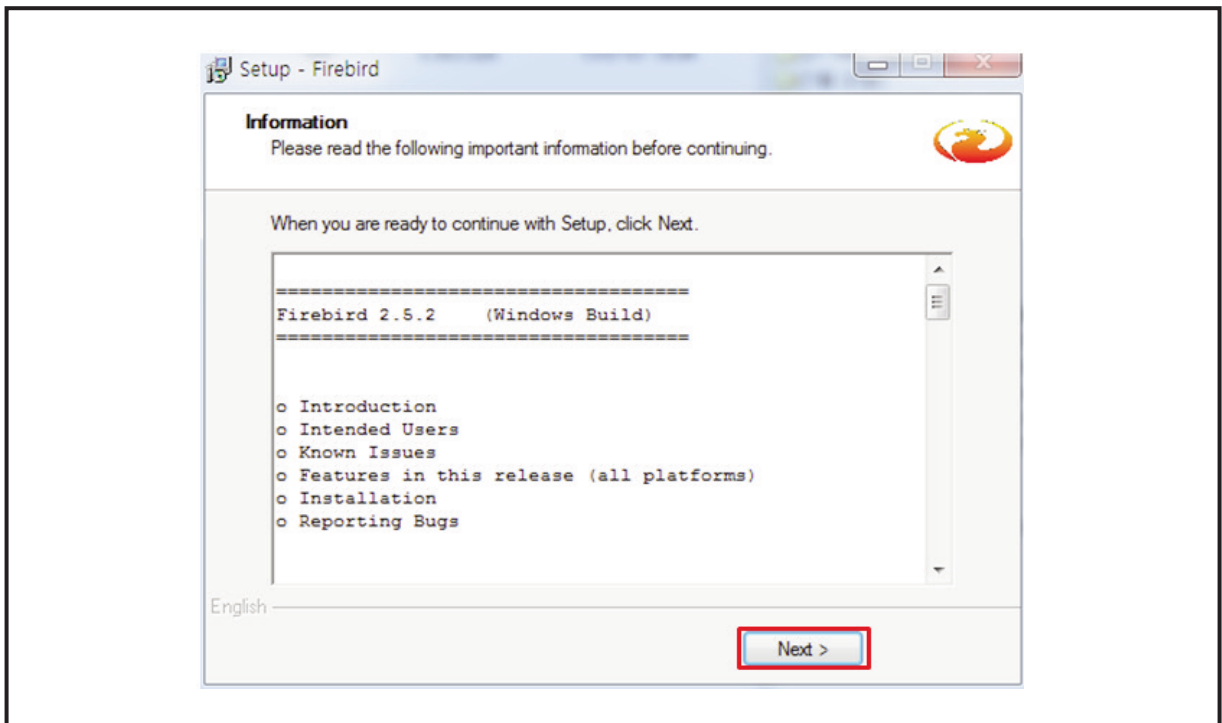
8) Window to Select Additional Tasks. Click [Next] to keep this set up.



9) Setup Check Window. Click [Install] button.



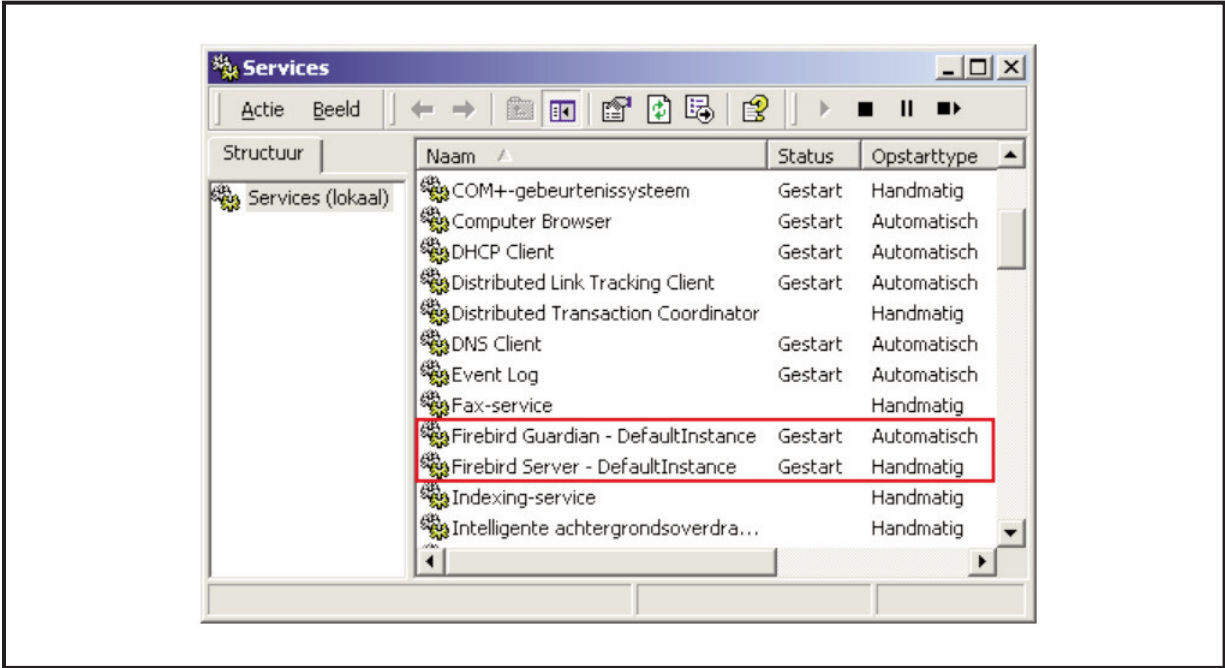
10) Version Explanation Window after installation is completed. Click [Next] button.



11) Completed.



12) Click [Control setup] - [Management help] - [Service] to check if it is well-installed once installation is completed and confirm that installation must be completed properly once [Firebird guardian – Default Instance], [Firebird Server – Default Instance] got started.

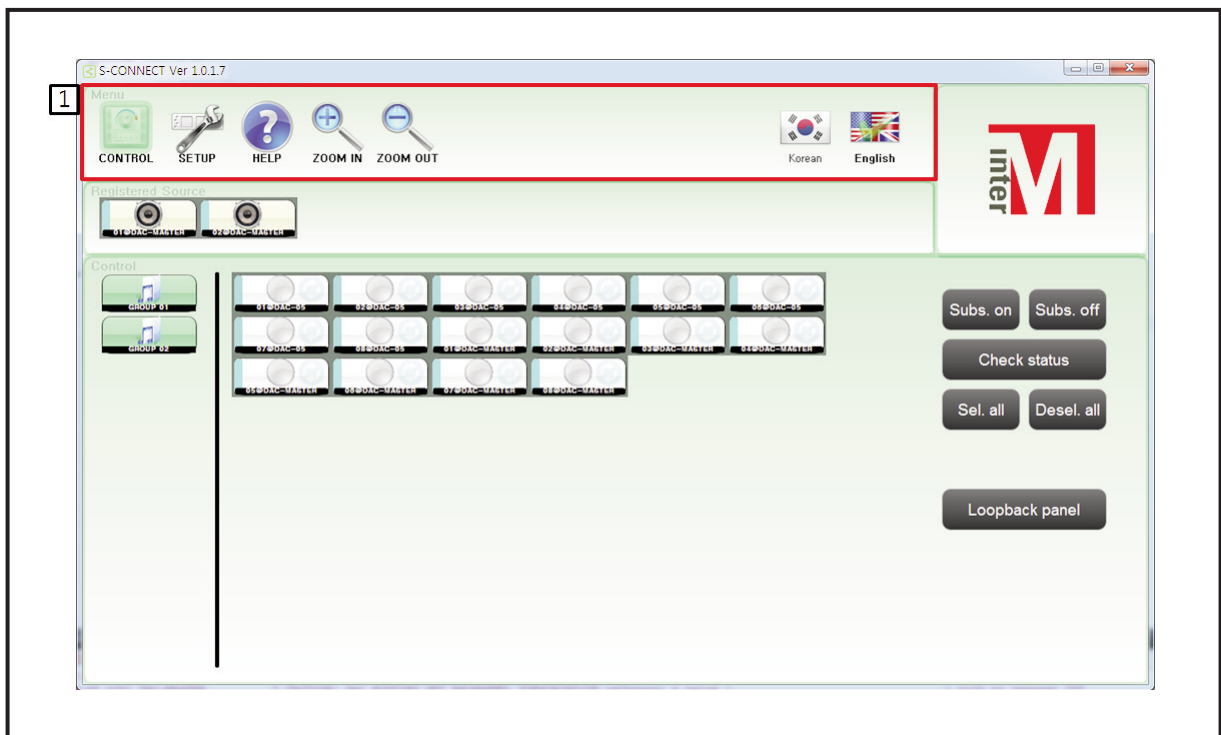


S-CONNECT Program Setup

There is normal operation method for broadcast control of DAC-288 equipment inside S-CONNECT, and there is operation method for manager to set channel and account information among DAC-288 equipment. There can be lots of programs on the network of normal S-CONNECT program. There should be only one program on the network of S-CONNECT program for manager.

1. For General Users

1.1 Initial Screen



Once DAC-288 installation program is installed, there is an initial screen to be seen when running S-CONNECT.EXE program.

Menu screen has [Control], [Set up], [Help], [Expansion], [Reduction], [Korean], [English] buttons.

(1) Enlargement – Enlarge control window, setup window, groups on setup window

(2) Reduction – Reduce the size of control window, groups on setup window, area button.

→ Enlargement and Reduction Button: The value doesn't change because the setup value is stored even when program restarts.

(3) Korean, English – Language setup is supposed to be changed if you click the button.

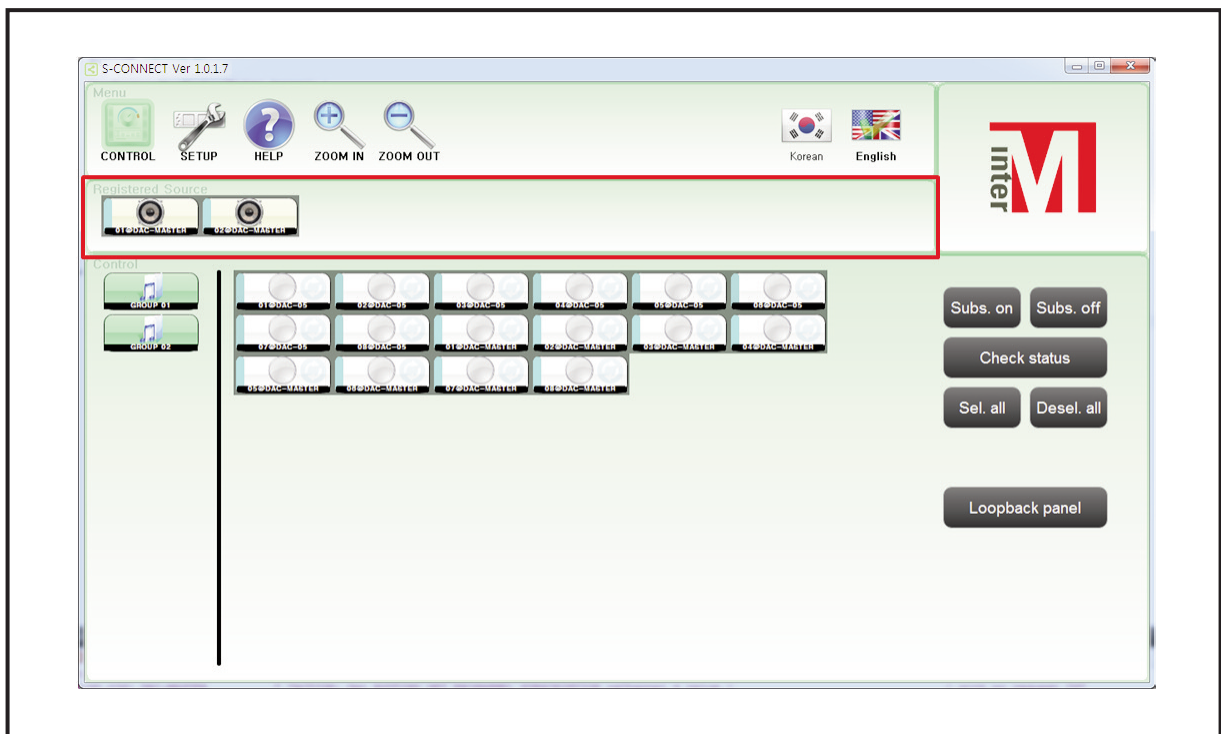
→ Korean, English Button: The value doesn't change because the setup value is saved even when program restarts.

1.2 Control Window

It can control broadcasts of DAC-288 equipment. It is proceeded as the following order for broadcast control.

- (1) Select some of the registered sound sources
- (2) Select zones by groups or manually
- (3) Broadcast control

1) Select output source of registered sources



- (1) Click registered sound source and select it.
Registering sound source is possible on the setup menu.
Only one sound source is selectable.

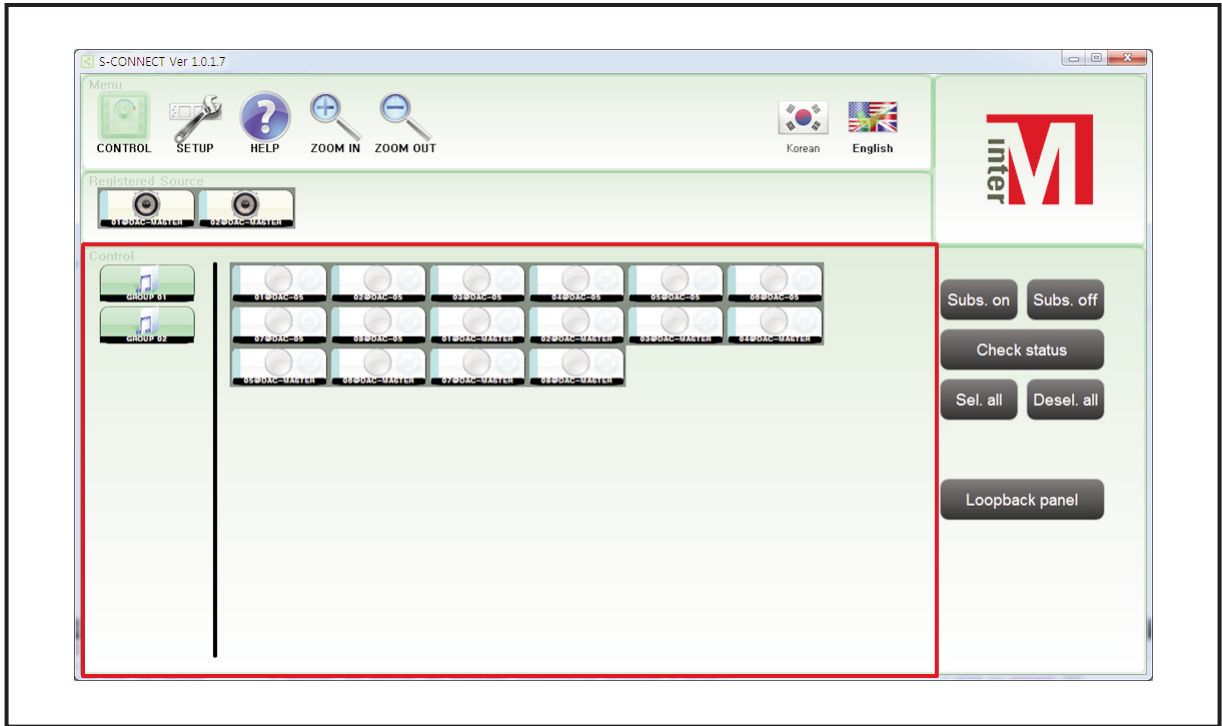
- When unselecting registered sound source



- When selecting registered sound source



2) Zone Select



- (1) Click registered groups and select areas
 Group register is possible on setup menu
 It is possible to select more than one group.
 - When unselecting a group



- When selecting a group



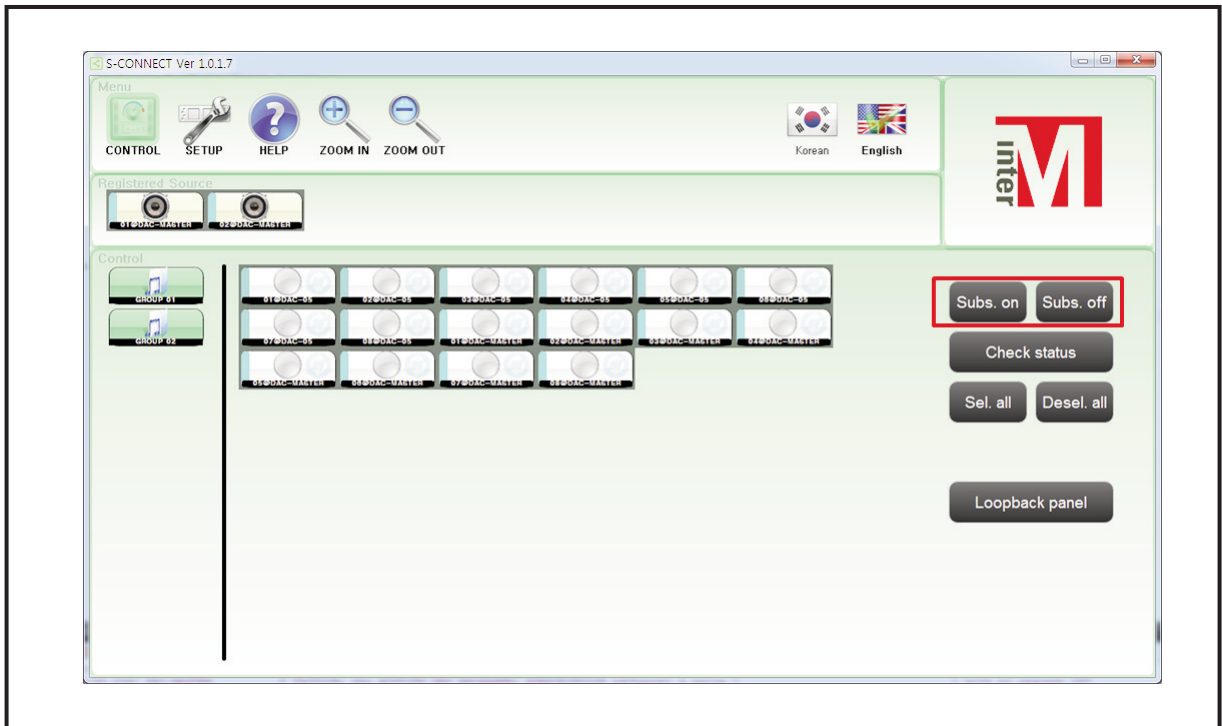
- (2) Click region directly and manually and select areas.
 - When unselecting a zone



- When selecting a zone

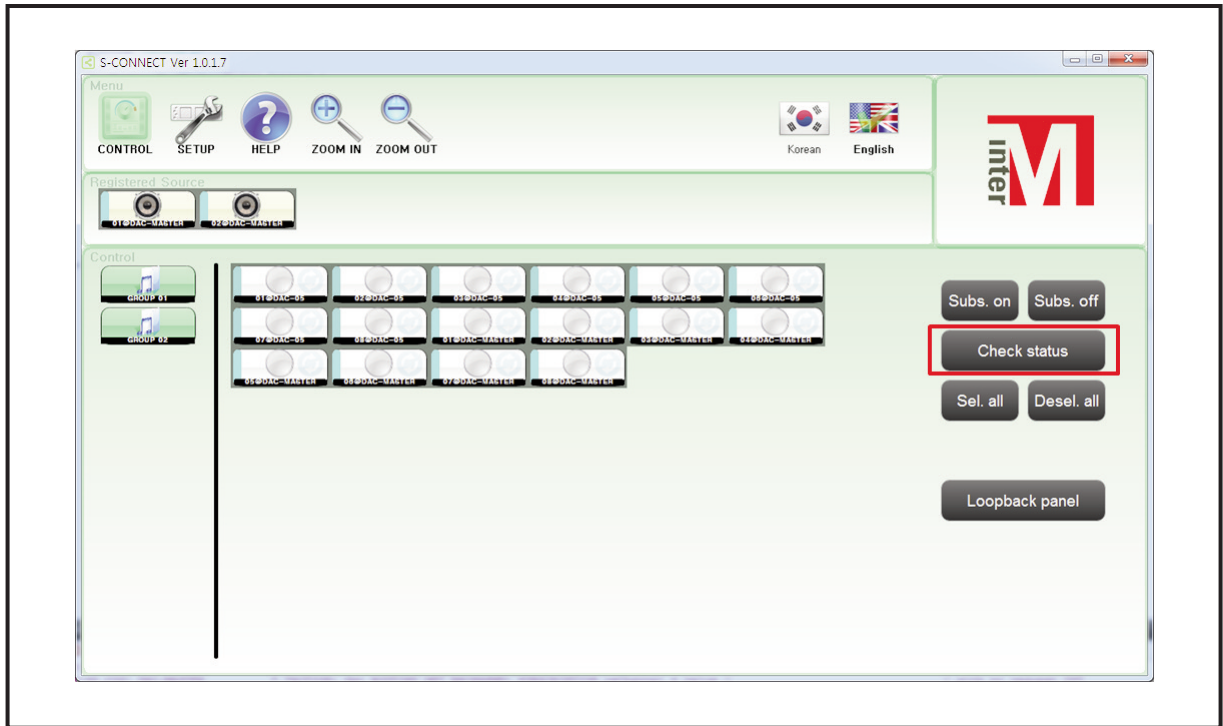


3) Broadcast Control



- (1) Broadcast start: Broadcast registered sound source to the selected zone.
If already broadcasting, the existing broadcast will cut off and be replaced with registered sound source.
The existing broadcast should be checked via [Equipment Status Check] at all times before starting broadcasting.
- (2) Sign-off: Close broadcast of selected zone
Close all broadcasts of selected zones regardless of registered sound sources.

4) Equipment Status Check



- Click equipment status check button and check all equipment that exist on network.
It is used to check which sound source is mainly being broadcasted in each equipment.
- When any broadcast is not running in the zone



- When a certain sound source is broadcasting in the zone (Sound source information will be indicated with blue color)



- When communication issue occurs in the zone
Re-try [Equipment Status Check] after 10 seconds when communication issue occurs , take action by judging that the equipment has its issue if the situation reoccurs.



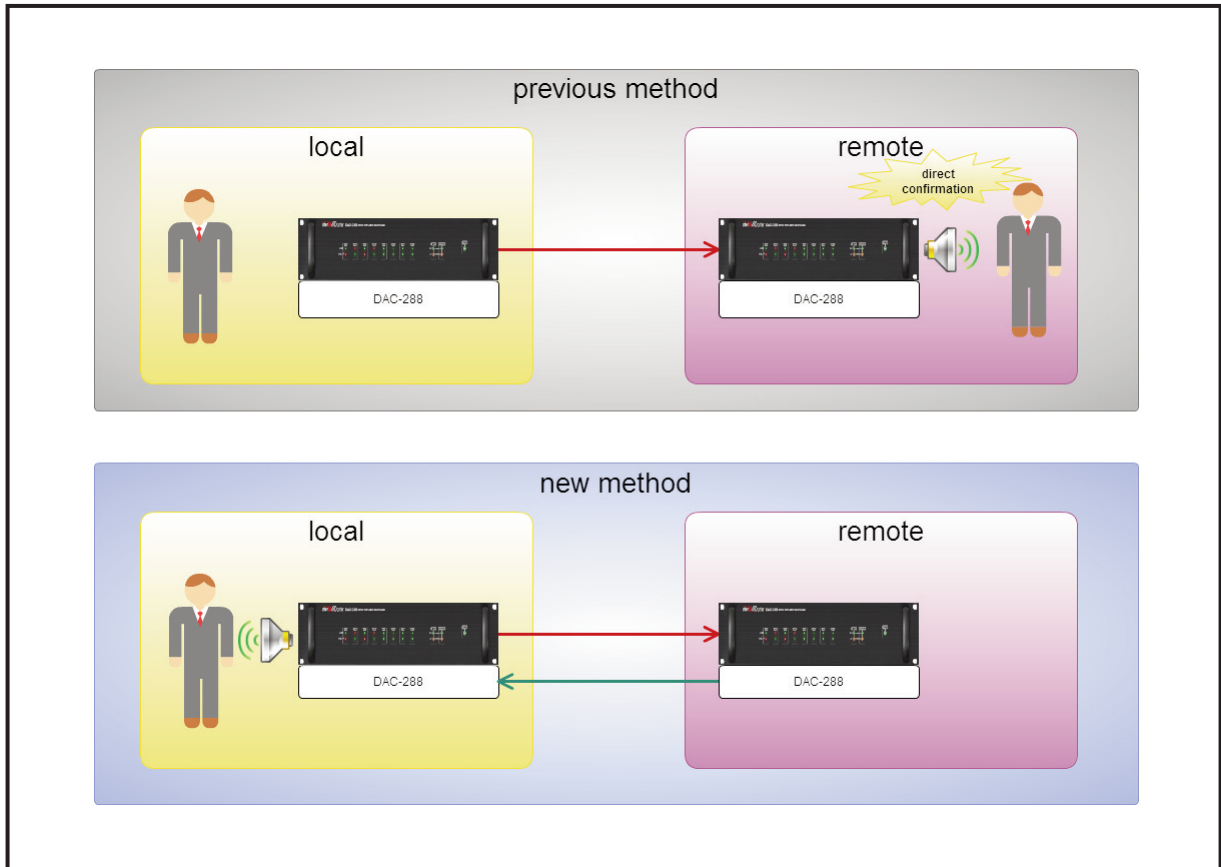
5) Broadcasting Status Check

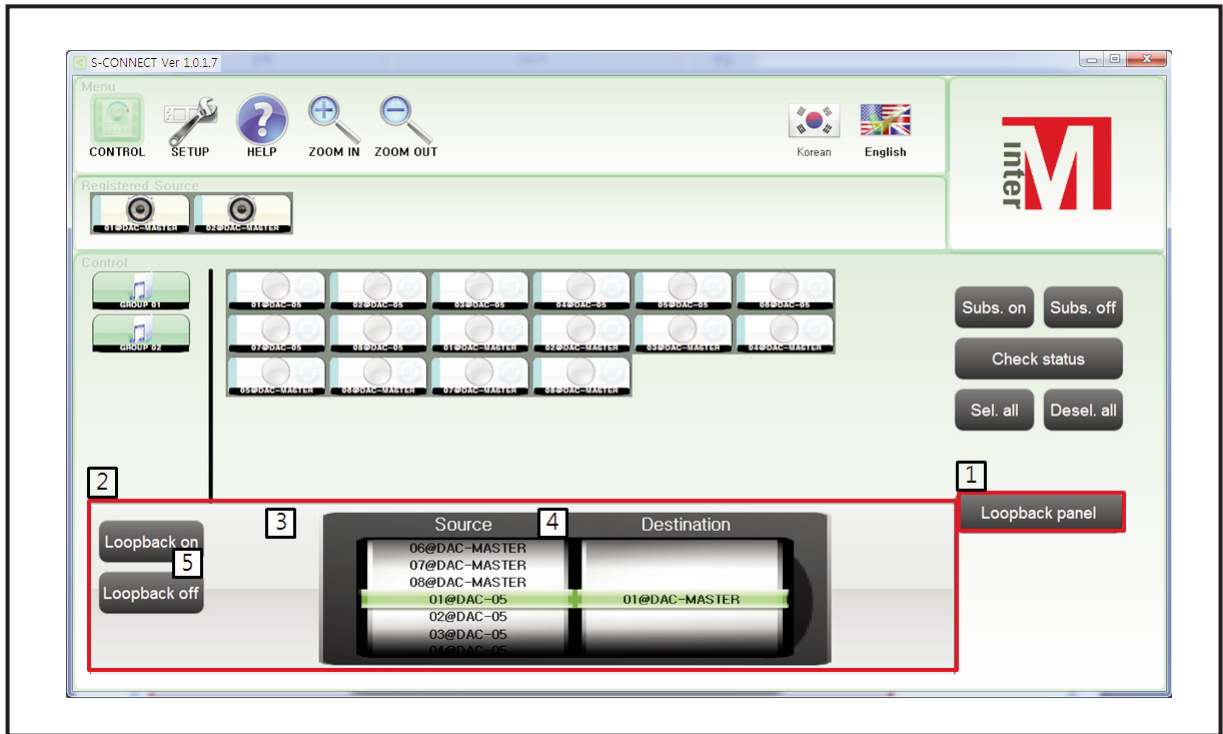
There is a function to check broadcasting status of remote equipment from the local in DAC-288.

In the past, if maintenance was required, it was common to go to a long distance area to check broadcasting status of remote equipment.

But, DAC-288 has the way to check broadcasting status from the local after giving feedback regarding sound source from the remote area to the local. Diagram is as below.

There are advantages for maintenance.





- (1) Click [Broadcasting Status Check Button].
- (2) Displays broadcasting status check window.
- (3) Select remote zone to check broadcasting status.
- (4) Select local zones where to output the remote broadcast.
- (5) Check broadcasting status to turn the power on or off
 - When broadcasting status check is off

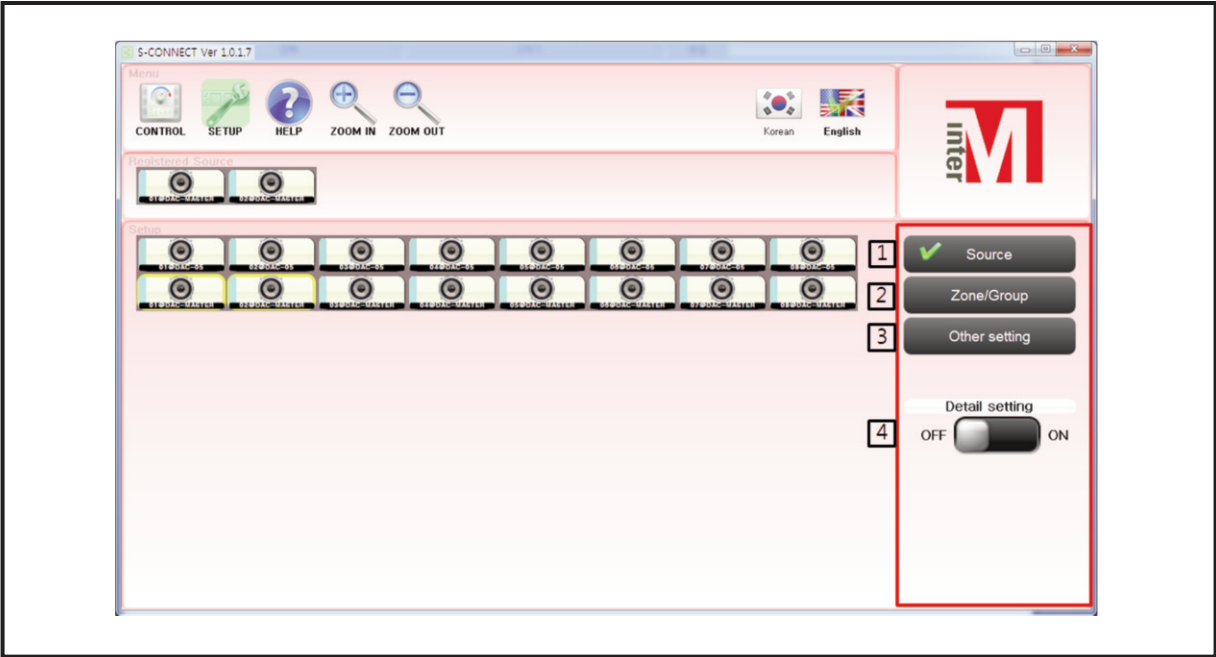


- When broadcasting status check is on



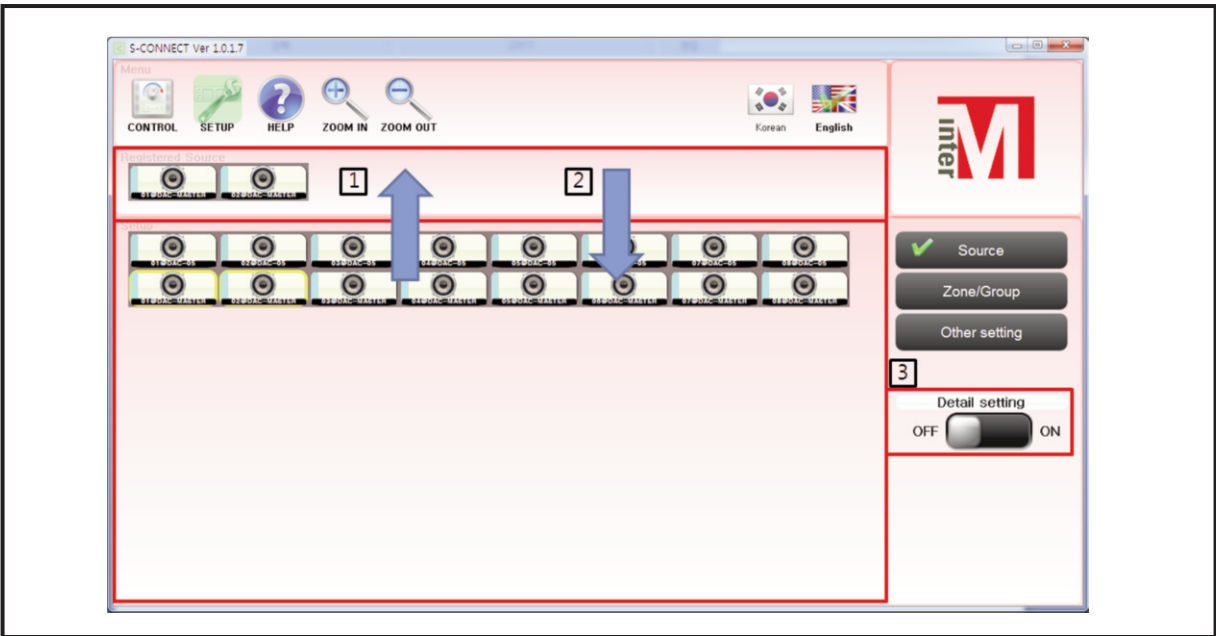
Note: Make sure to be off when broadcasting status check function is not used, then broadcast will not be jammed up.

1.3 Setup Menu



- (1) Sound source setting
- (2) Region / Group setting
- (3) other settings
- (4) Detailed settings
It is used if setting sound source, group, detailed region.

1) Sound Source Setting



(1) Sound Source Register

When using mouse, choose one source and drag and drop to the [registered sound source].

When using in touch panel, double-click one of the sound sources and drag and drop to the [registered sound source].

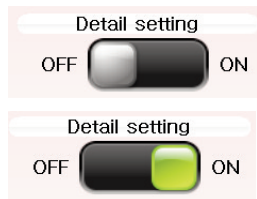
(2) Sound Source Delete

When using mouse, choose one registered sound source and drag and drop to outside.

When using in touch panel, double click one of the sound sources and drag and drop to outside.

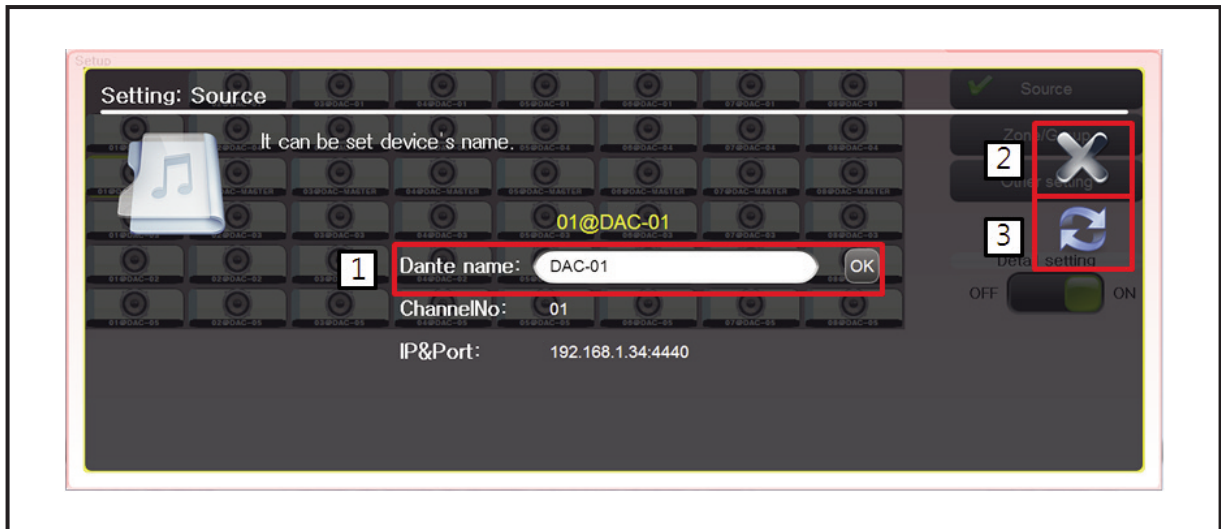
(3) Sound Source Detailed Setting

3-1 OFF -> ON

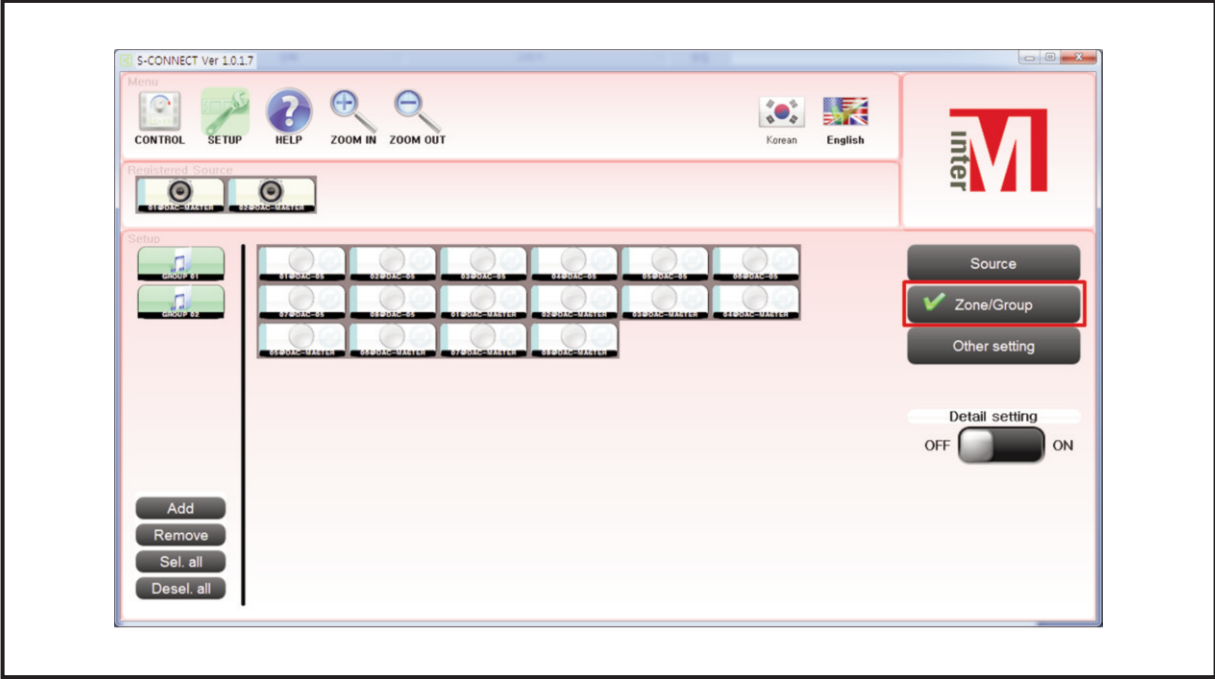


3-2 Click sound source that needs the setting change once the detailed setting of sound source is changed from OFF to ON.

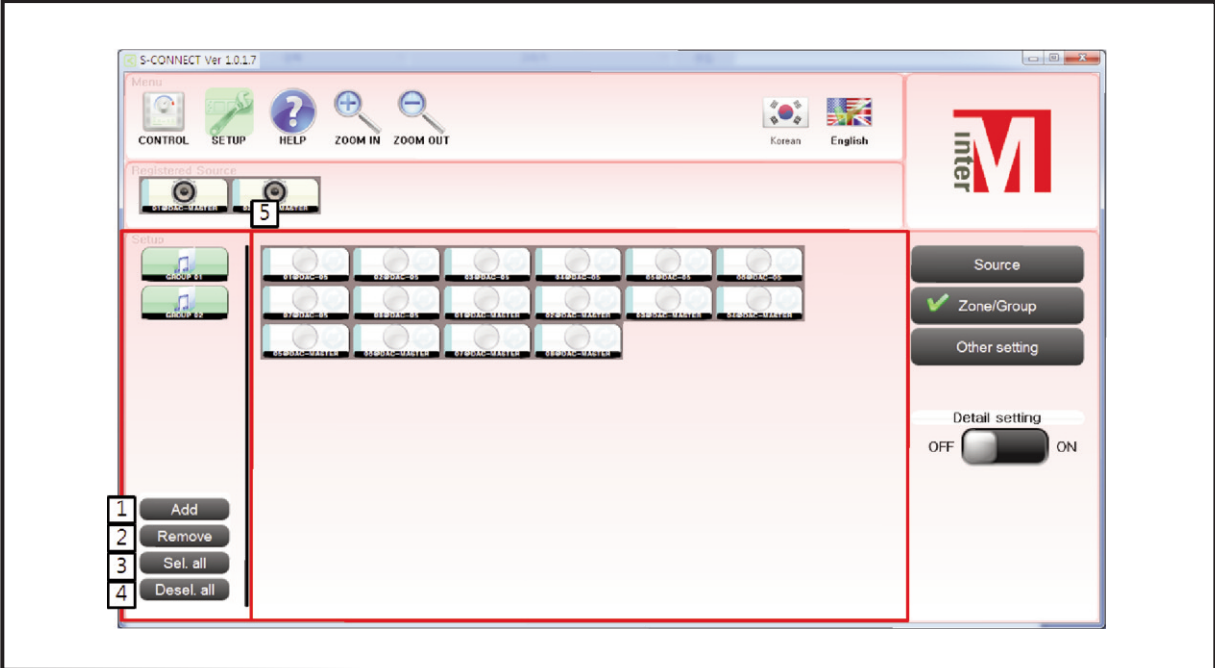
- i. Equipment Name Setting (If you click 'CHECK', the equipment name will be modified.)
- ii. Window Close
- iii. Equipment status check



2) Zone/ Group Setting
Zone/Group Setting Window



(1) Group Setting



- i. Addition
Add a group. Select region on the right region of the window and click [ADD] button, then group will be added.

- ii. Delete
Delete a group. Select a group and click [DELETE] button to delete it.
- iii. The whole selection
Select all areas on the right side of the window.
- iv. The whole removal
Remove to select all areas on the right side of the window.

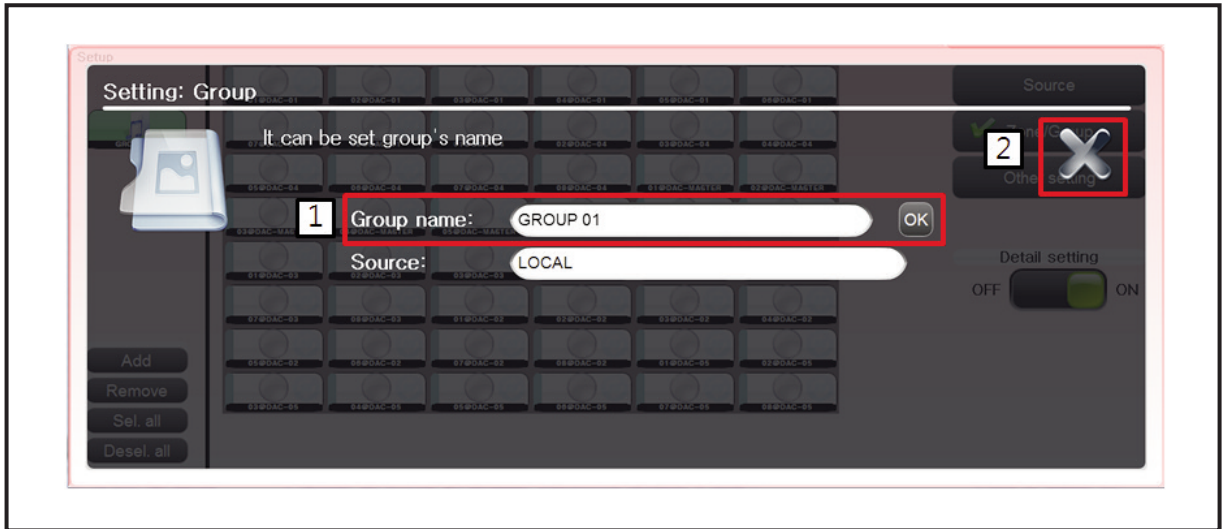
(2) Group Detailed Setting

2-1 [DETAILED SETTING] should be ON for group detailed setting.

If clicking a group in 'ON' status of the detailed setting, group detailed setting is possible.



2-2 Group Detailed Setting Window



- i. Group Name Setting (If you click 'CHECK', the related group name is changed.)
- ii. Window Close

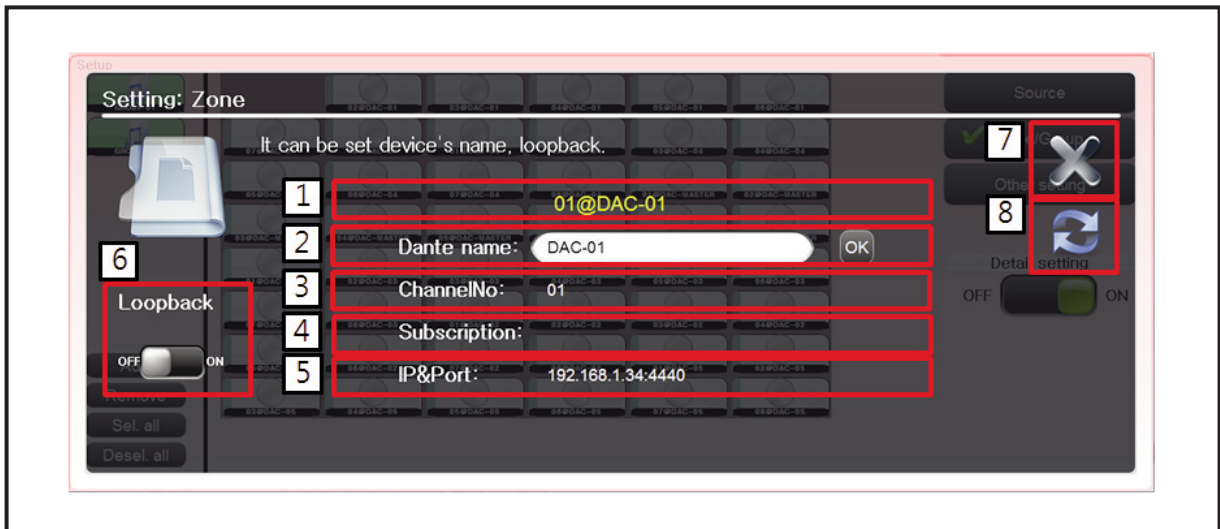
(3) Region Detailed Setting

3-1 [DETAILED SETTING] should be ON for region detailed setting.

If clicking a group in 'ON' status of detailed setting, region detailed setting is possible.

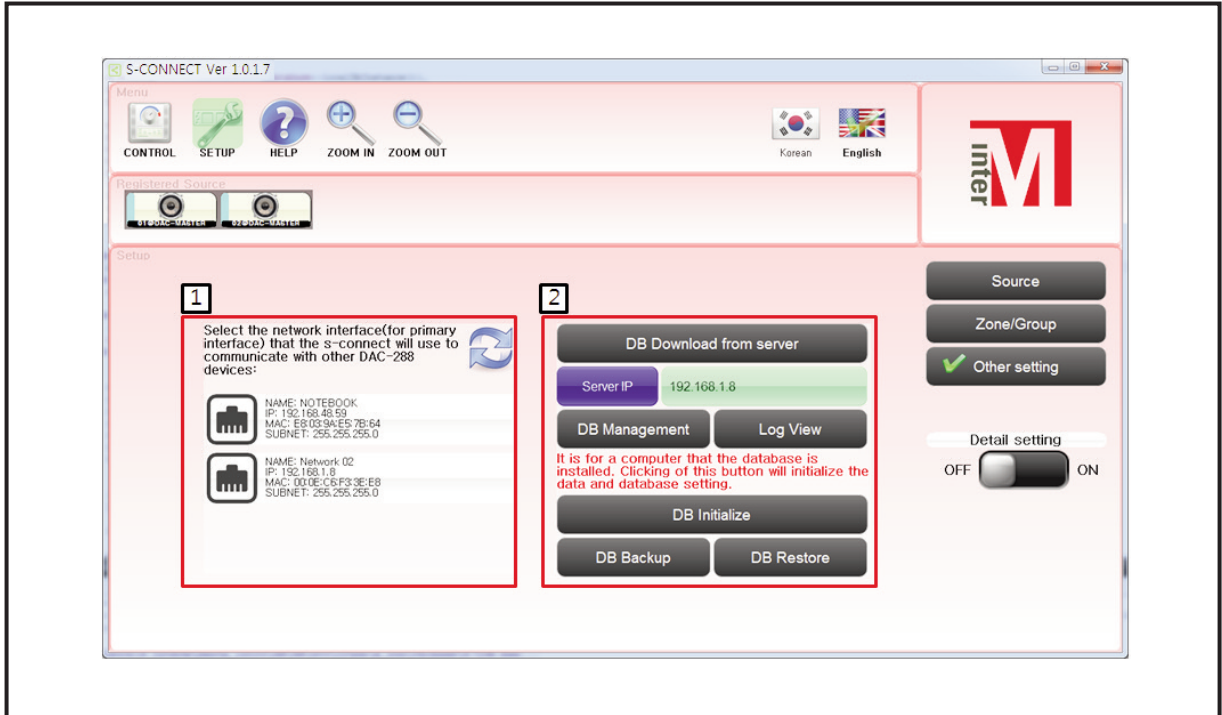


3-2 Zone Detailed Setting Window



- Actual channel number and equipment name (Channel number@ Equipment name type)
- Equipment name setup (If clicking, a sound source of the equipment is changed.)
- Actual channel number of equipment
- Displays broadcast information of current channel (Channel number@ Equipment name type)
- IP and Port number of equipment
- ON/OFF setting for checking Broadcasting Status.
- Window close
- Equipment status check

3) Other Settings
Other settings window



(1) Network card selection window

If a computer has lots of network cards, it is used to select a network card to use for DAC-288 control.

(2) Database setting and log window

It manages channel information as database between DAC-288 equipment.

a. Database Download Button from Server

Channel information is public information which exists in the server and is applied to the current program.

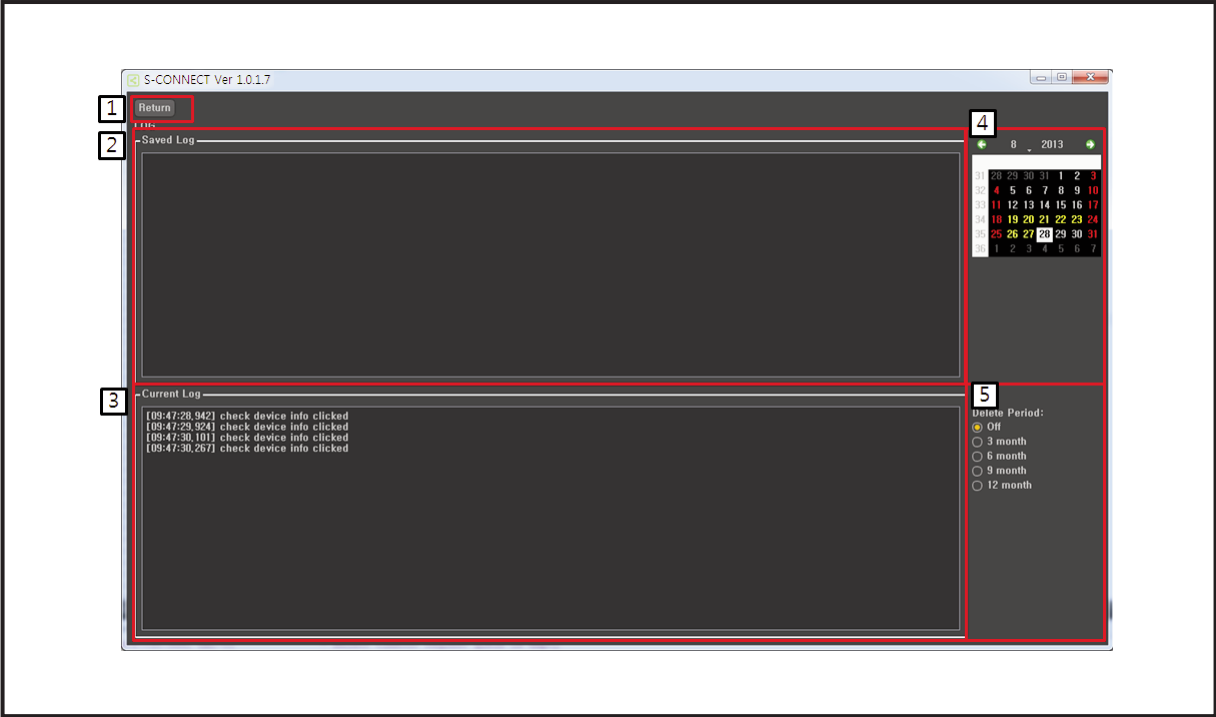
b. Server IP

Input Database Server IP

c. Database Control Button

(The menu is for manager. Check 2.2 "For Manager" part of manual as managing channel information.)

d. Log Check Button
Check program's log.

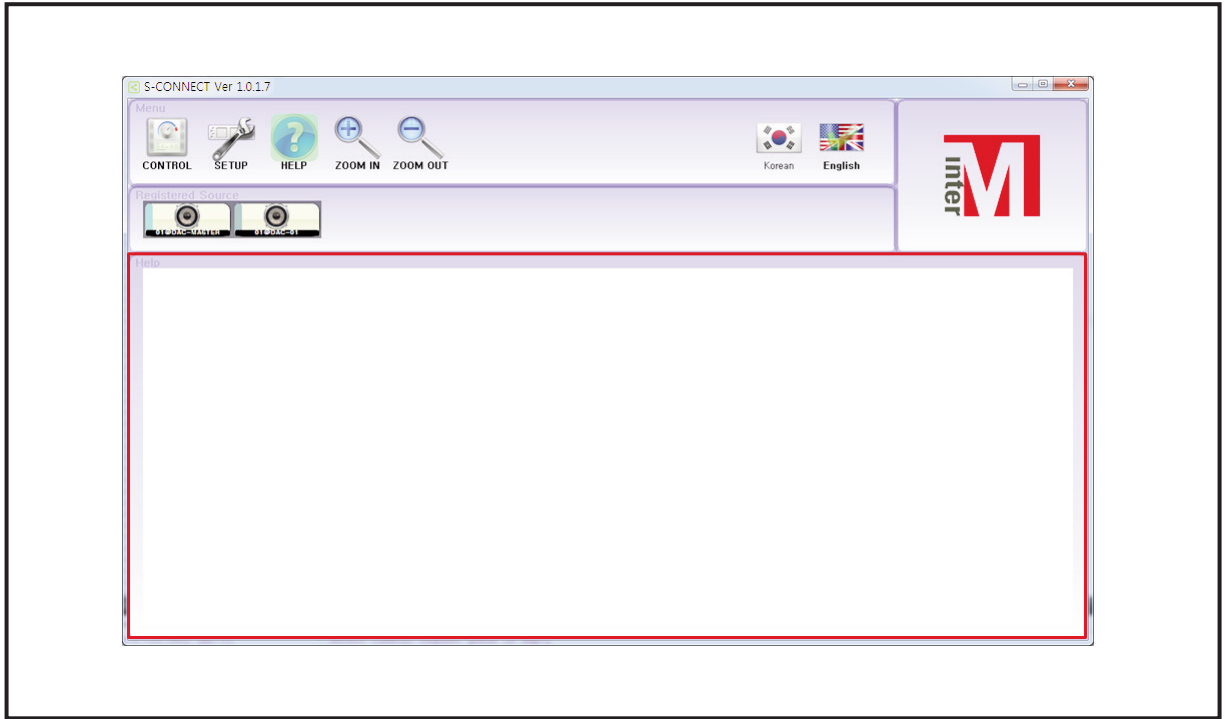


- d-1. Back button - Return to the previous screen
- d-2 Saved log - Window to check log saved in the past.
- d-3 Current log - Window to check current log. Displays yellow.
- d-5 Delete period - select log file delete period. Choices are [Inactivated], [3months], [6months], [9months], [12months].

e. When installing S-CONNECT for manager, database is installed in PC. This is the button to first initialize database only once after installing DB.

1.4 Help Window

It includes program operation manual, and it allows pages to be shifted by dragging using mouse or touch pad.

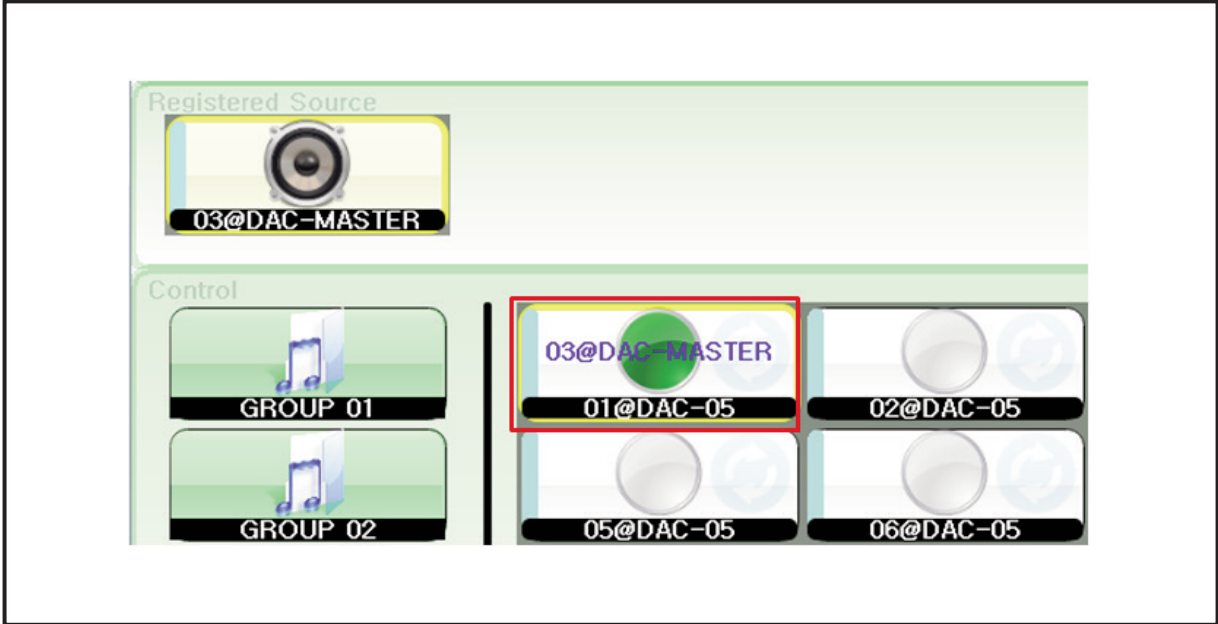


2. For Manager

There is channel information which is public between DAC-288 equipment. It can manage the public information by establishing DB.

The reason why channel information is used is to operate S-CONNECT program by replacing the name which can be easily understood.

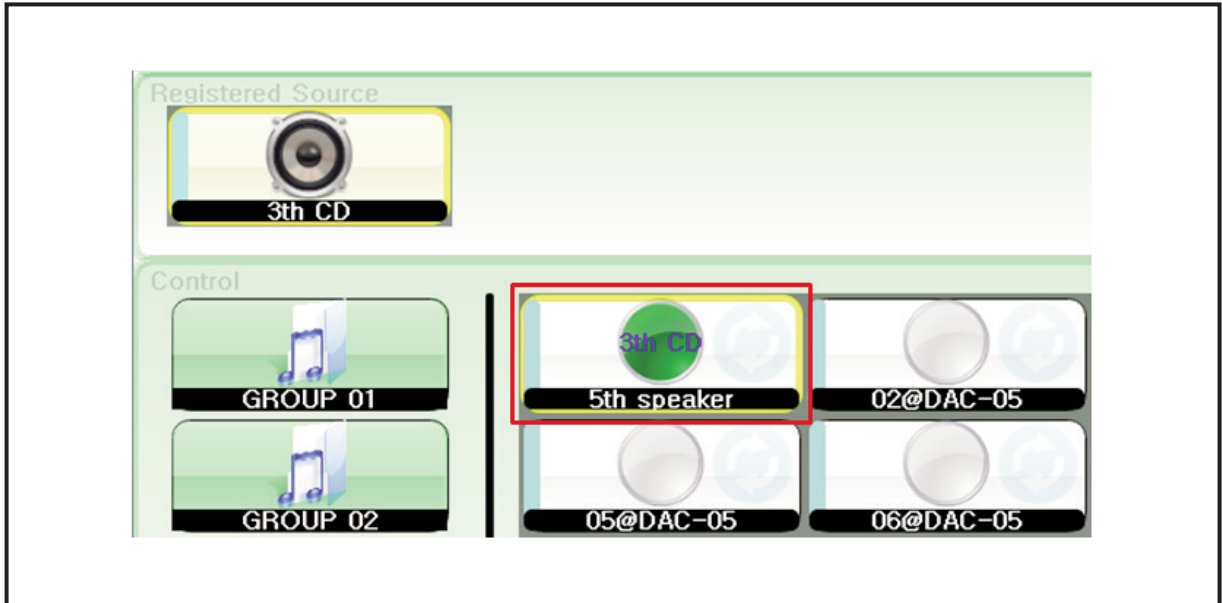
For example, the situation as below is that channel NO.3 of equipment which named DAC-MASTER is broadcasting on the channel NO.1 of DAC-288 which named DAC-05.



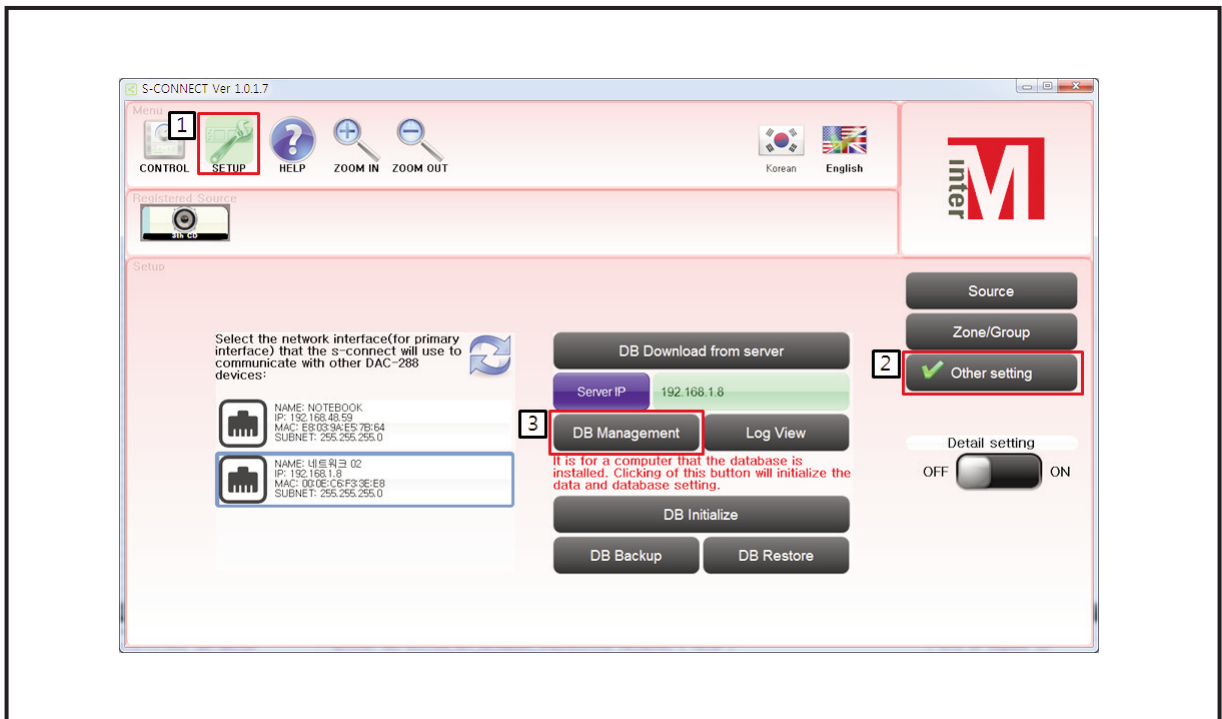
Change this via channel name setting as below.

	Dante Name	Channel No	Channel Type	Channel Name
1	DAC-05	1	RX	5th speaker
2	DAC-MASTER	3	TX	3th CD

Next, there is as below when running S-CONNECT program again.
 It is translated that CD No.3 is being broadcasted in speaker No.5 in the first class of the first grade.



2.1 DB management



- (1) Click setting button
- (2) Click other settings button
- (3) Click database button

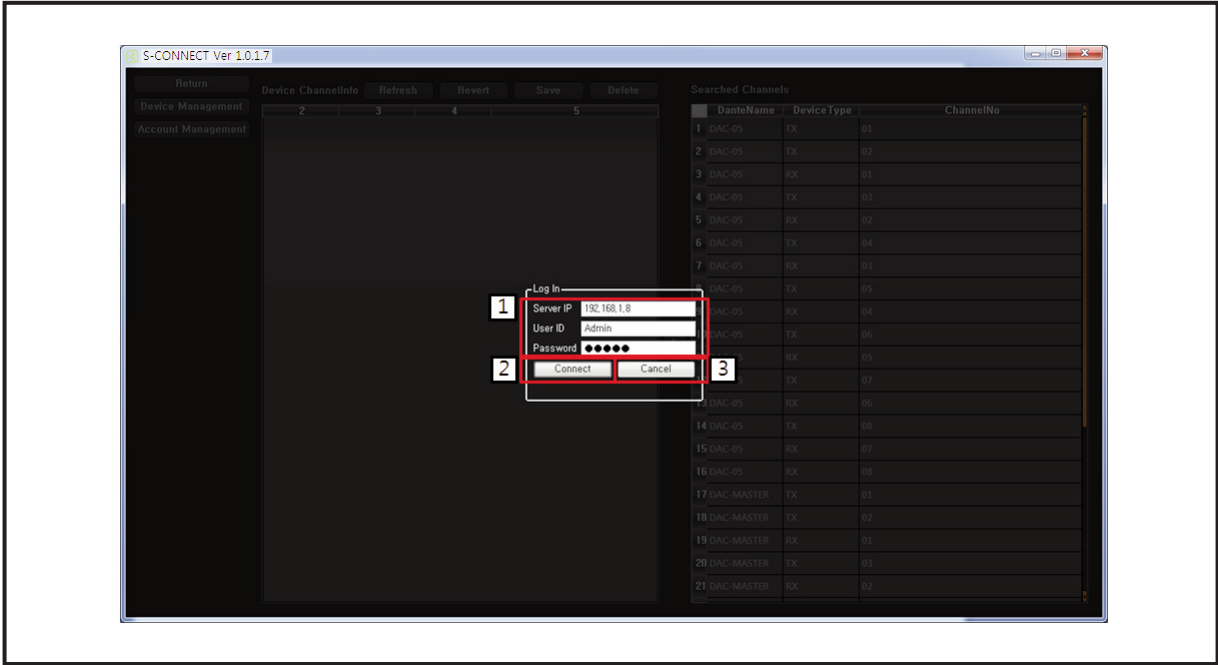
1) Log In

Log in is needed to manage public database.

User ID: Admin

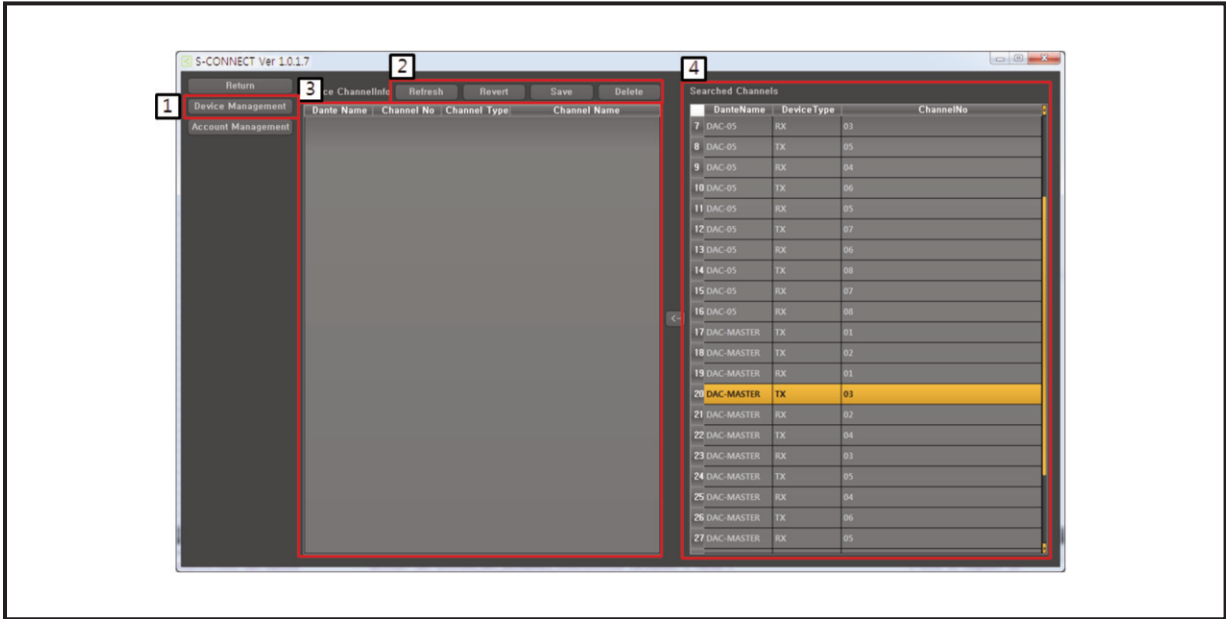
User Password: Admin

- (1) Click access button and try to access the existing server which has database.
- (2) Click cancel button and return to the previous screen.

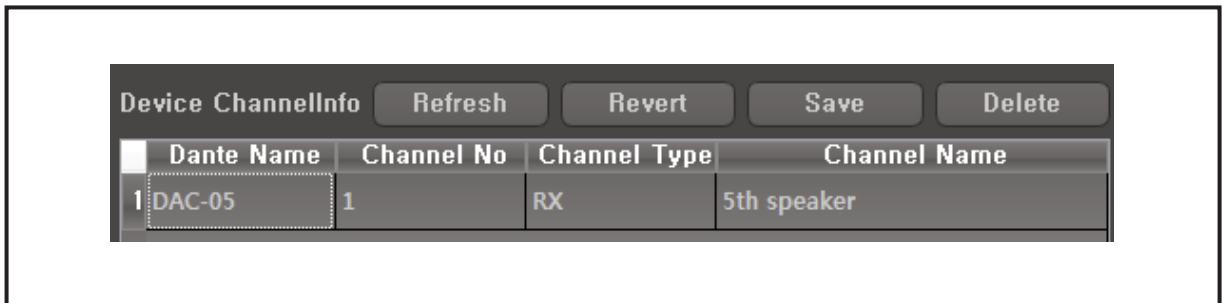


2) Equipment Channel Name Management

Equipment Channel Name Management Screen

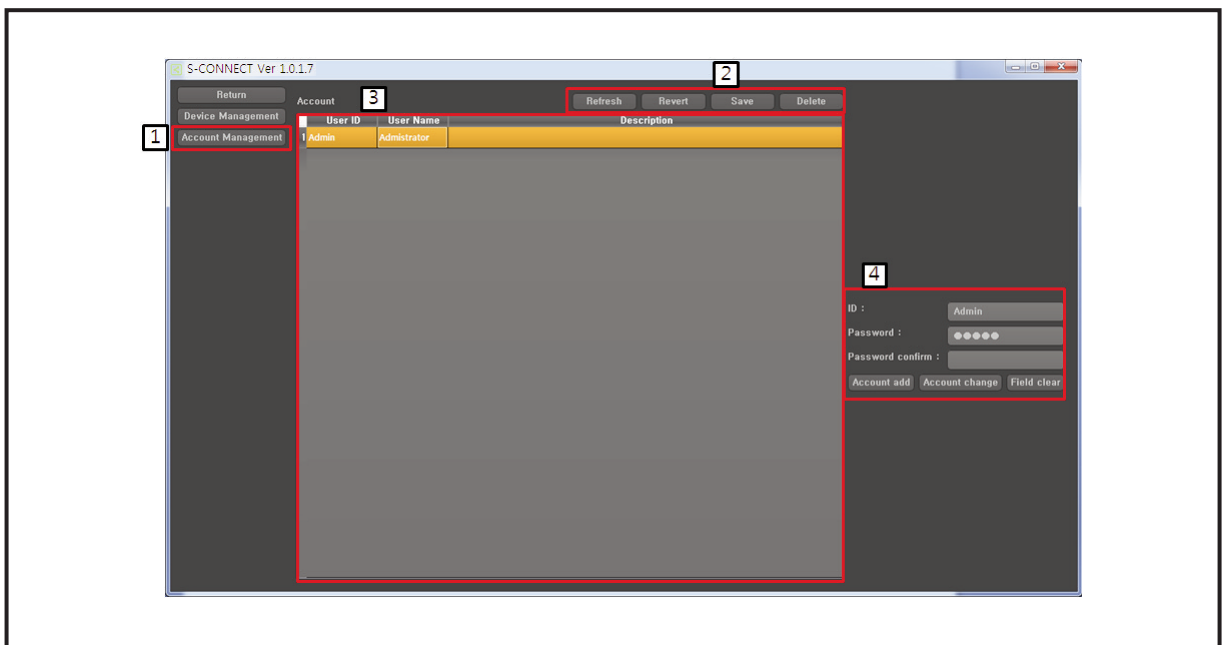


- (1) Click equipment management button and open equipment channel name management screen.
- (2) Channel name information control button
 - a. Search button brings channel name information to the server again.
 - b. Back button restores equipment setting information which has edited so far.
 - c. Save button saves equipment setting information which has edited so far.
 - d. Delete button delete selected channel name information.
- (3) Channel name control window
Set channel name of each channel after bringing channel information from searched channel No.4.



- (4) Searched channel window
Displays lists of DAC-288 equipment which currently exists network. It is classified into channel, RX, TX, and set a channel name in channel name control window of No.3.

Account control screen. Registered account can manage equipment channel name.

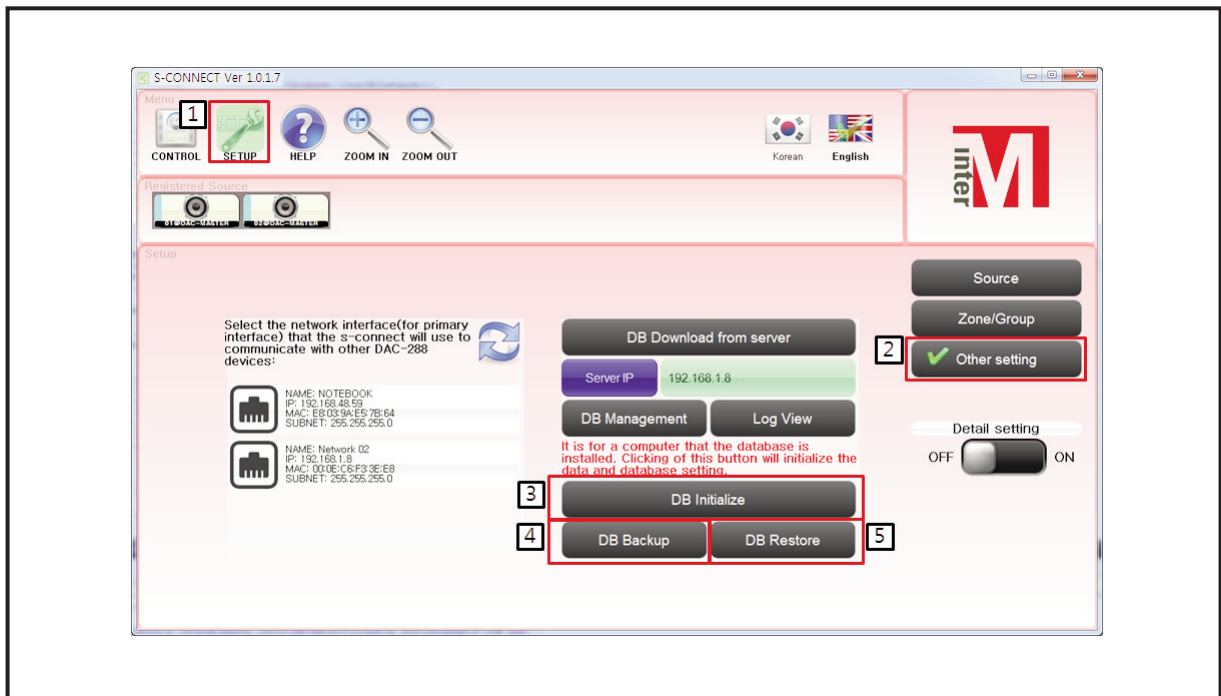


- (1) Click account control button and open account control screen.
- (2) Account control button.
 - a. Search button brings channel name information to the server again.

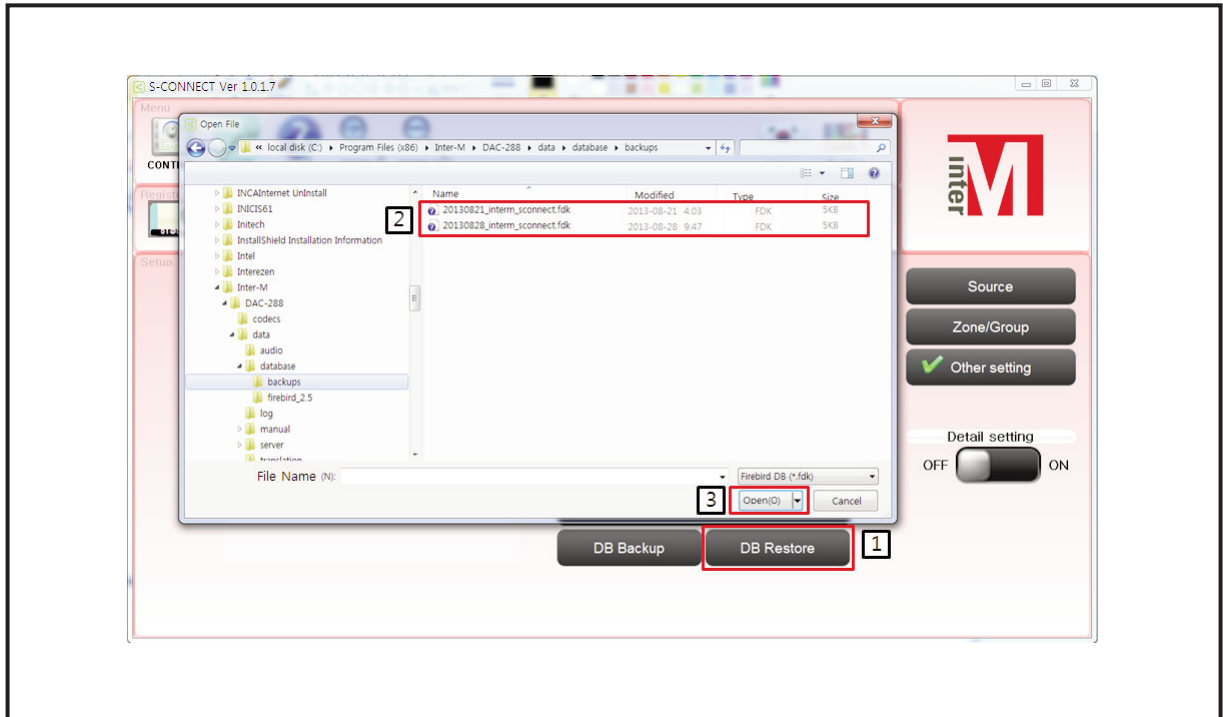
- b. Return button restores equipment setting information which has edited so far
 - c. Save button saves equipment setting information which has edited so far.
 - d. Delete button delete selected channel name information.
- (3) Account control window
Displays account information list from server. New account register is possible via No.4
- (4) It is used to add an account.
- a. Account addition button adds an account
 - b. Account change button changes the existing account.
 - c. Field delete button removes ID, password, password check datas.

Note: Only one "Admin" account is created, and it is unable to change ID.

2.2 Database Initialization, backup, restoration



- (1) Click setting button.
- (2) Click the other setting button.
- (3) Data Initialization
Database is unavailable after first installing and should be initialized.
- (4) Database backup
Backup the data which is currently being saved in database.
Backup storage is as below.
S-CONNECT \ data \ database \ backups \ YYYYMMDD_interm_sconnect.fdk
- (5) Database restoration
Restore database which is backup already.
S-CONNECT \ data \ database \ backups \ YYYYMMDD_interm_sconnect.fdk select backup data and restore it.



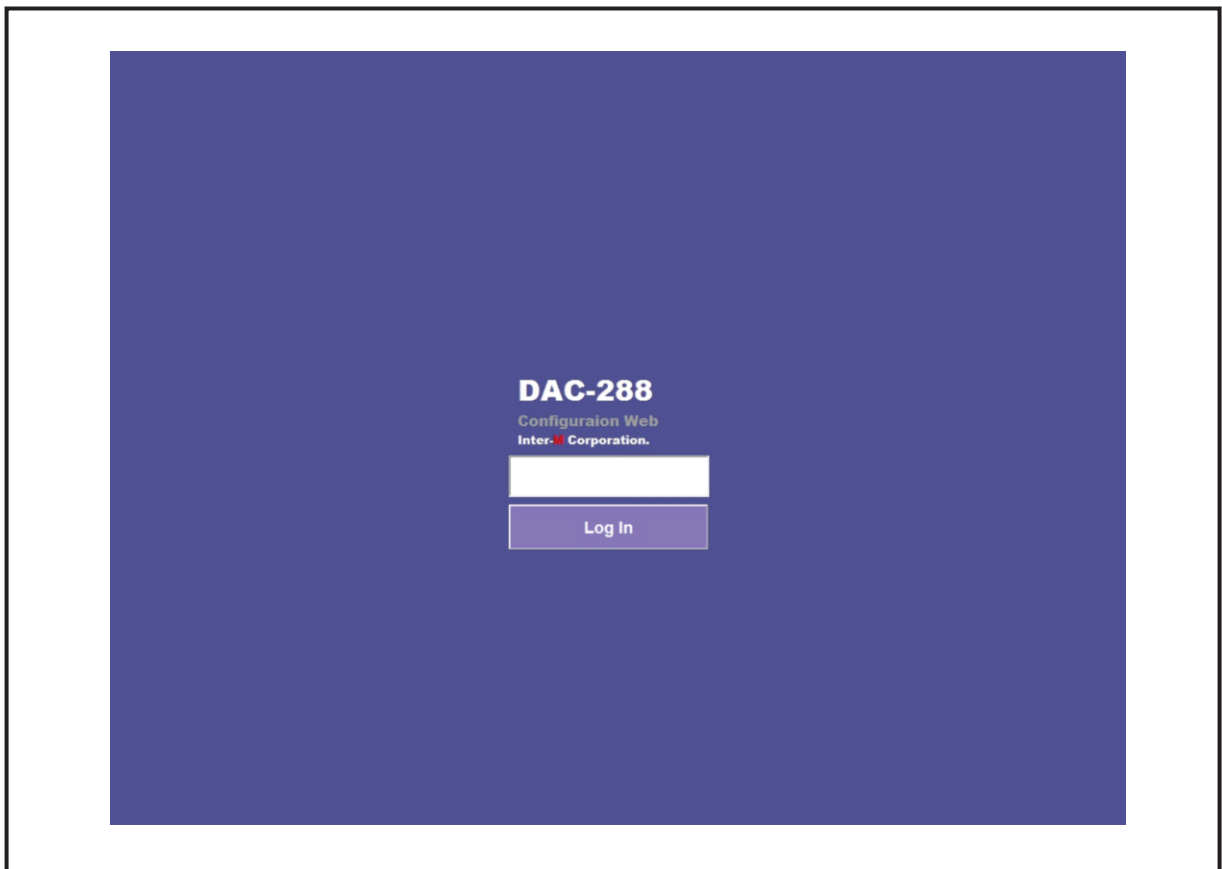
- a. Click database restoration button
- b. Select backup data
- c. Click open and restore database

Equipment CGI Setup

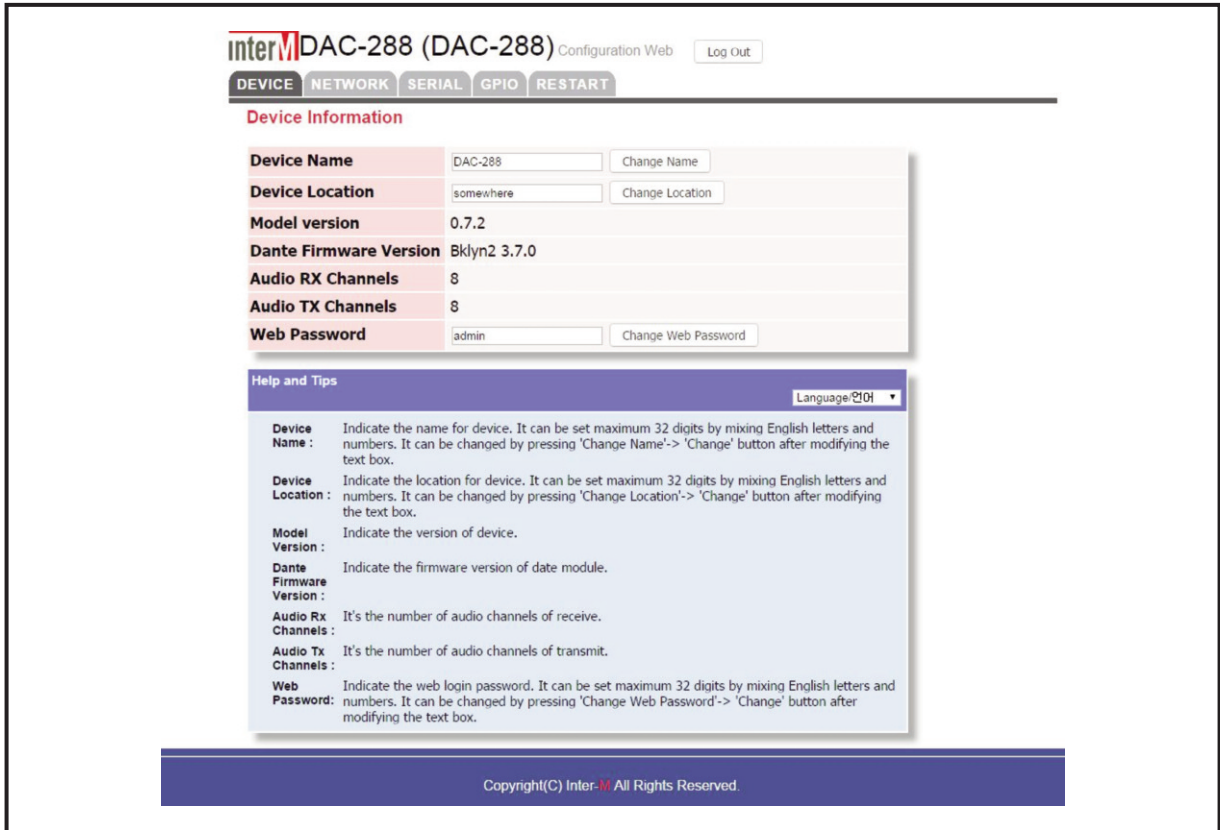
DAC-288 comes with web browser based page access for the equipment status information as well as control.

1. DAC-288 Equipment Log-In

- 1.1 Using PC's internet browser explorer, chrome, firefox, or safari to access the internal browser page.
DAC-288's web page is in HTML5 based.
Previous versions of explorer v9.0, chrome 5.0, firefox 3.0, safari 4.0 can be used; however, displays may not be viewed properly.
- 1.2 Type in at internet address bar, "devicename.local" or equipment IP address.
Log-in window will appear as below.
- 1.3 Enter the password(default password is "admin") then confirm by click the Log In button or by pressing the enter button key board to access web browsing interface.



2. Equipment Set Up, DEVICE TAB



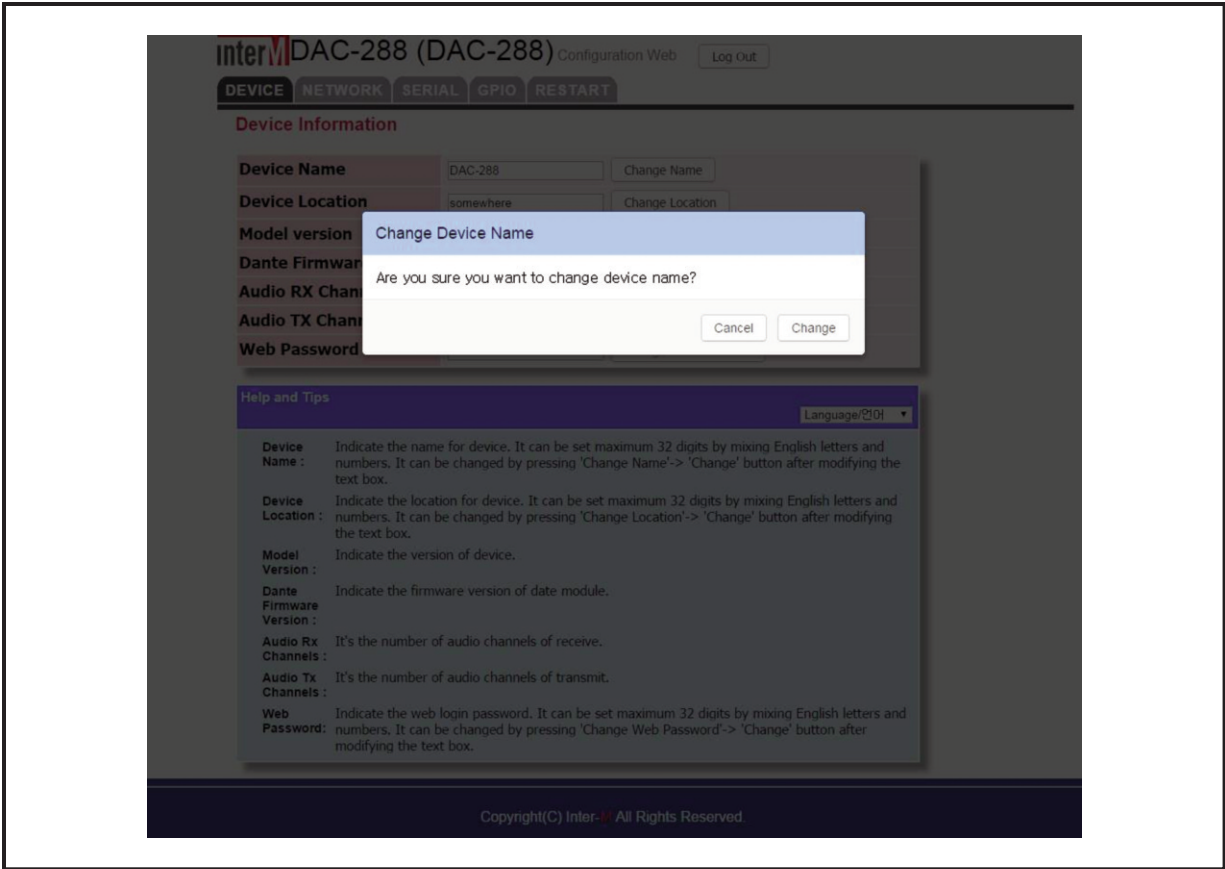
2.1 Once connected, the first window will be "DEVICE TAB". In this Tab, Device name, location, Equipment Versions, Information, Equipment name can be configured.

Item	Contents	Default Value
Device Name	Display device name. Click "Change Location" to make location changes	noname
Device Location	Display device location. Click "Change Location" to make location changes.	Someware
Model Version	Display model Version.	
Dante Firmware version	Display Audinate Firmware Version	
Audio RX Channels	Display maximum RX Channels.	8
Audio TX Channels	Display maximum TX Channels.	8
Web Password	Allows you to change the password. A password can be up to 32 choracters with a combination of numbers and letters	admin

2.2 Naming the Equipment

DAC-288 requires S-CONNECT names to search and control. When multiple DAC-288s are installed, each must have a unique name. Equipment names can have up to 32 characters with mixture of alpha/numbers.

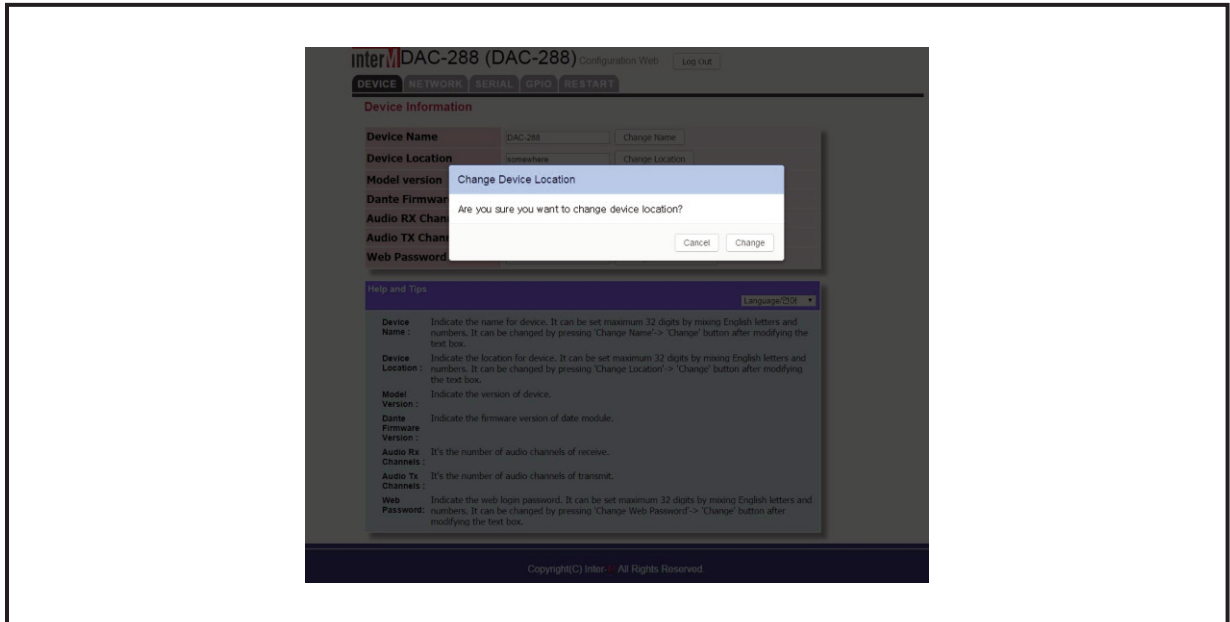
Names can be changed/ updated by clicking "Change Name" button.



2.3 Equipment Location Setting

Equipment location can be set using SNMPv1. Location can be verified within the network. Location name can have up to 32 characters, consisting of alpha/ numbers.

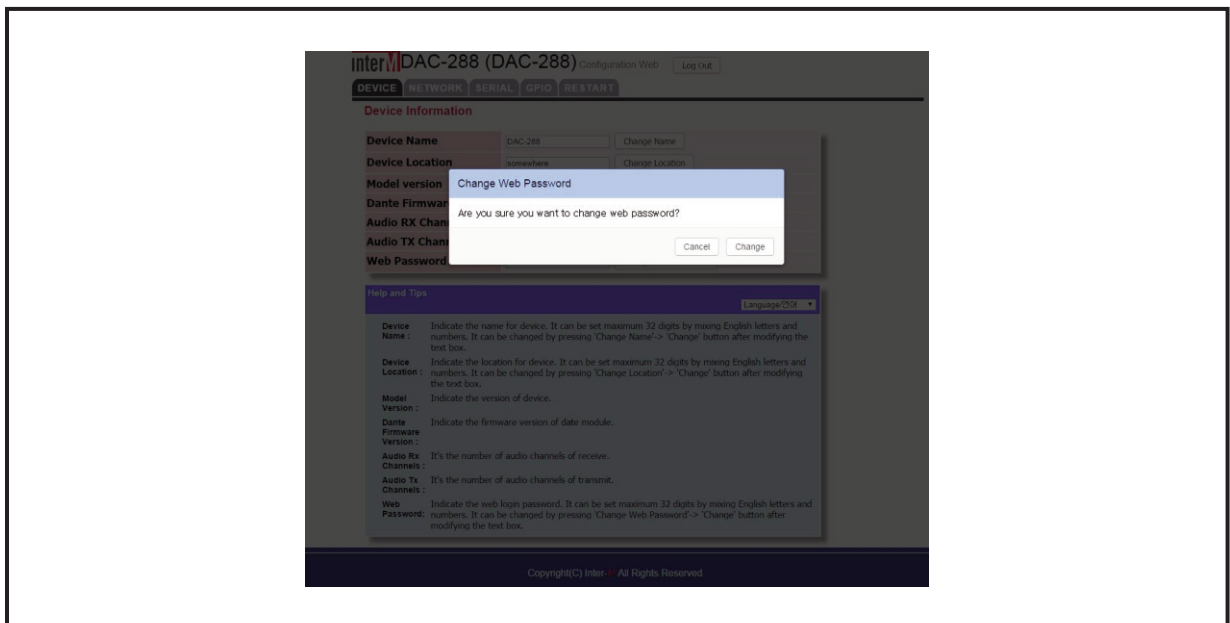
Location can be set/updated by clicking "Change Location" button.



2.4 Password Setting

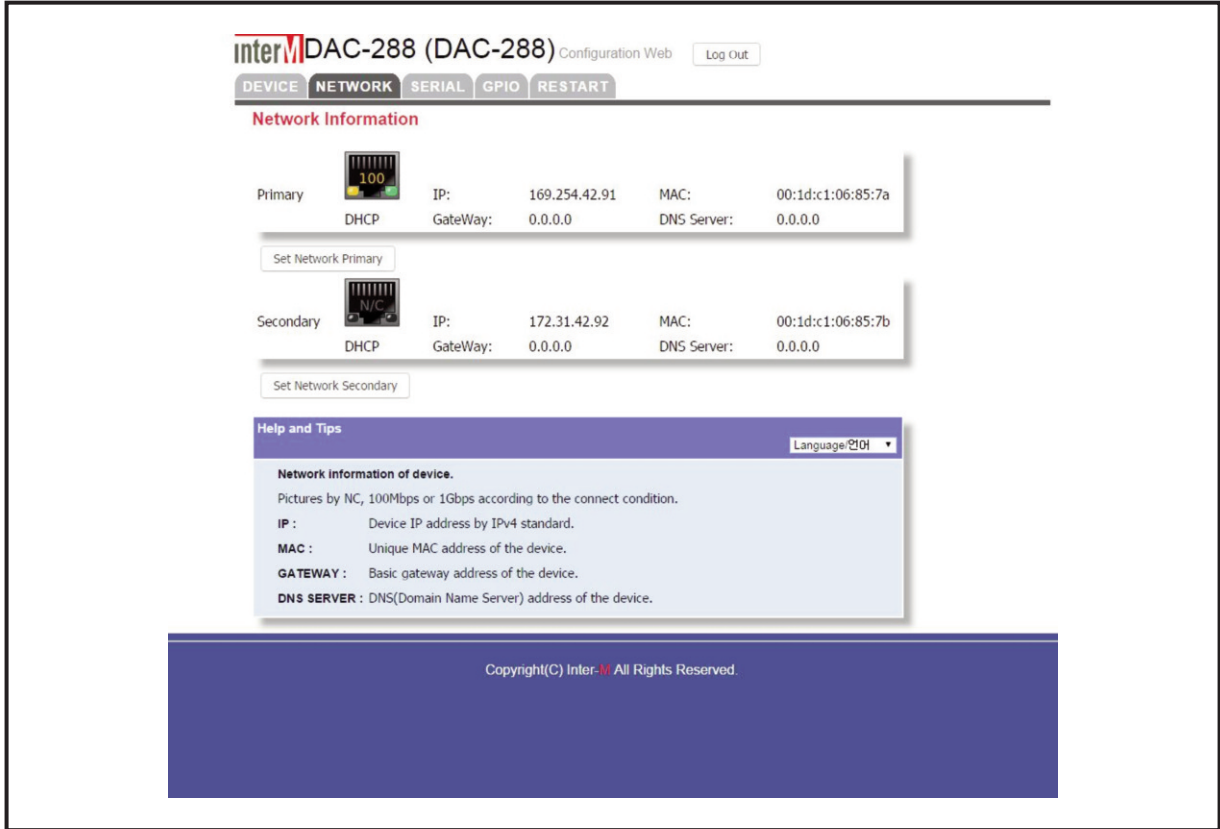
A password can be up to 32 characters with a combination of numbers and letters.

Enter the new password, then press the "Change Web Password" button to confirm.



3. Network Setting, NETWORK TAB

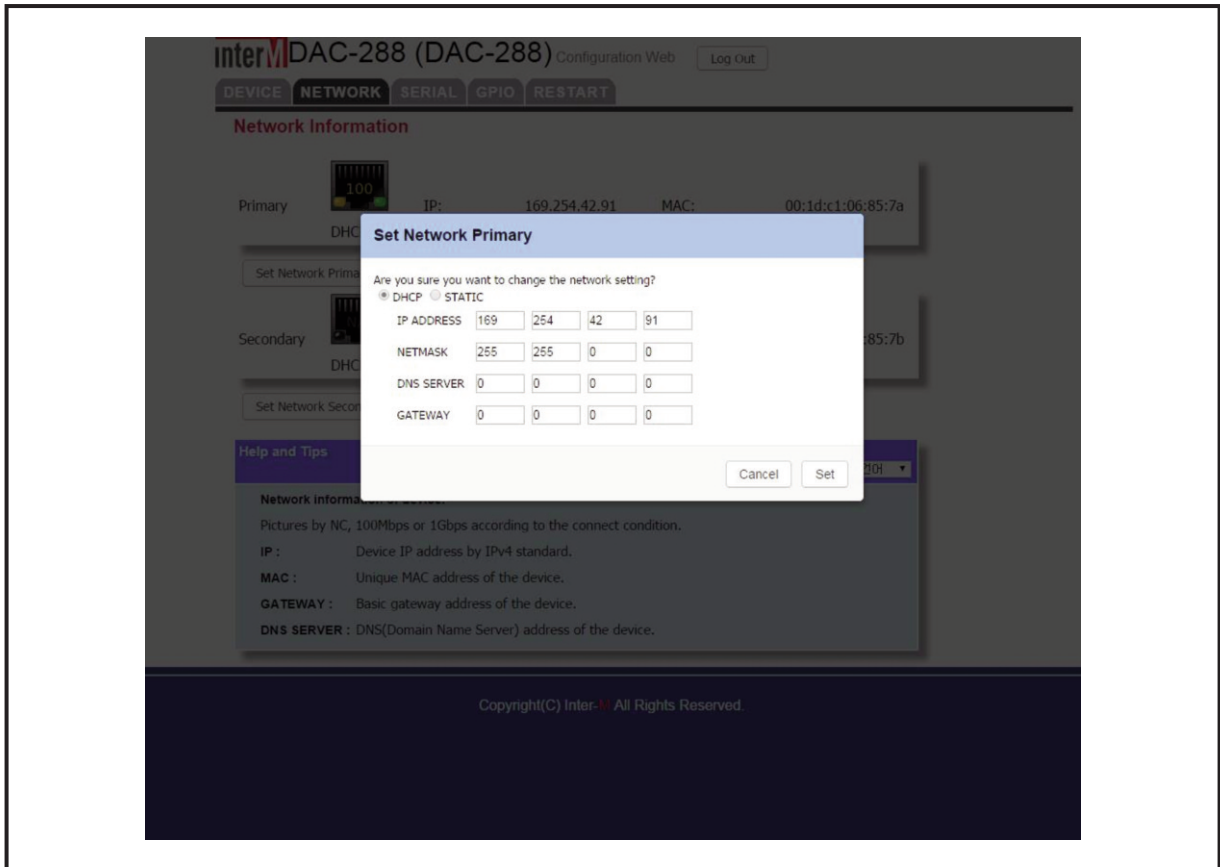
3.1 Network status of the Equipment. The setting can be changed.



Item	Contents	Default Value
Primary	Displays the status of the network connection in Primary (default). In (100M/1000M), pictorial representations.	
Secondary	Secondary(Redundancy) equipment of the network connection status is displayed. In (100M/1000M), pictorial representations.	
IP	Displays the IP address of the equipment.	
MAC	Displays the unique MAC address of the device.	
Gateway	Equipment's (Gateway) address is displayed.	
DNS Server	Equipment's DNS(Domain Name System) Server address is displayed.	

3.2 Network Setting Change

Click **Set Network Primary** button and change network settings of the equipment.



Network is classified into DHCP, STATIC.

- If setting as DHCP, it brings IP information via network sharer connected to the equipment.
- If setting as STATIC, it is possible to set up by inputting network information manually.

4. Serial Configuration, SERIAL TAB

4.1 Serial communication, data transmission can be set between devices. In serial communications, there are 1:1 and 1:N ways.

The screenshot displays the 'interM DAC-288 (DAC-288) Configuration Web' interface. At the top, there are navigation tabs for 'DEVICE', 'NETWORK', 'SERIAL', 'GPIO', and 'RESTART', with 'SERIAL' currently selected. A 'Log Out' button is visible in the top right corner. Below the tabs, the 'SERIAL Setting' section is active. It contains several configuration fields: 'ON/OFF' with a radio button set to 'OFF'; 'Baud Rate' with radio buttons for 9600, 19200, 38400, 57600, and 115200; 'Mode' with radio buttons for 'Single 1:1' (selected), 'Server', 'Client', 'Multi N:N', 'Receiver', and 'Sender'; 'IP Address' with four input fields containing 169, 254, 42, and 91; and 'IP Port' with an input field containing 5454. Below these fields are 'Default' and 'Set' buttons. A 'Help and Tips' section is also present, featuring a 'Language/언어' dropdown menu. The help text includes: 'Set up serial communication transmit of RS-232.', 'ON/OFF Turn ON/OFF device's serial communication.', 'Baudrate Set up transmission speed of serial communication.', 'Mode: Set up the connection method of serial communication. Set up as Single 1:1 or Multi N:N. It operates as duplex mode or receive mode on the Multi method. Serial communication receive is available only in case of set up receive mode.', 'IP Address Set up IP address for serial communicate connection. Single Server: Set up IP address for device itself.(169.254.42.91) Single Client: Set up device IP address that need to be connected. Multi Receiver: Set up multicast IP address (239.0.0.0 ~ 239.255.255.255). Multi Sender: Set up multicast IP address (239.0.0.0 ~ 239.255.255.255).', and 'IP Port: It's a network port number on serial connection. Default value is 5454.' At the bottom of the interface, a blue bar contains the text 'Copyright(C) Inter-M All Rights Reserved.'

Item	Contents	Default Value
ON/OFF	Determines whether to transmit the serial communication data.	OFF
Baud Rate	Set baud rate required for serial communication	9600
Mode	Determine serial communication method Single : TCP/IP Unicast Multi : UDP Multicast Single Server : 1:1 connect. Server setting. Single Client : 1:1 connect. Client setting. Multi Receiver : 1:N connect. Receiver setting When set by Receiver, only data can be received 1:N connect Sender setting When set by Sender, data can be sent and received.	
IP Address	Setting the IP address to be used when transferring serial communication Single Server: Set to Primary IP Single Client: Connection of the equipment that you want to set as the Primary IP Multi Receiver: IP address of Group to join (224.0.0.0~239.255.255.255) Multi Sender: IP address of the Group to join (224.0.0.0~239.255.255.255)	
IP Port	Serial communication port setting	5454
Default / Set	Default: Back to original default mode and no changes have been made. Set: All settings have been updated/saved. When applied, system will reboot and requires about 30 seconds to start and apply new settings.	

5. Contact Setting, GPIO TAB

5.1 Setting the Equipment contact control. There are two contact control methods. One is syncing audio signals and the other is combining signals from two or more devices.

The screenshot displays the 'interM DAC-288 (DAC-288) Configuration Web' interface. At the top, there are navigation tabs for 'DEVICE', 'NETWORK', 'SERIAL', 'GPIO', and 'RESTART'. The 'GPIO' tab is selected, showing the 'GPIO Setting' page. The settings are as follows:

- ON/OFF:** A toggle switch set to 'OFF'.
- Mode:** Radio buttons for 'Audio synchronization' (selected), 'SINGLE', and 'MULTI'.
- Transmission:** Under 'SINGLE', radio buttons for 'Output' (selected) and 'Input'. Under 'MULTI', radio buttons for 'Output' and 'Input'.
- IP Address:** Four input fields containing '169', '254', '42', and '91'.
- IP Port:** An input field containing '6464'.

Below the settings are 'Default' and 'Set' buttons. A 'Help and Tips' section is visible at the bottom, containing the following text:

Set up dry contact transmit method.

ON/OFF Turn ON/OFF dry contact transmit.
:

Mode : Set up dry contact transmission method.
Audio synchronization: Dry contact is generated by synchronized with audio output signal.
SINGLE OUTPUT: Set up device will output dry contact, when it connects 1:1.
SINGLE INPUT: Set up device will be input dry contact, when it connects 1:1.
MULTI OUTPUT: Set up device will output dry contact, when it connects 1:N.
MULTI INPUT: Set up device will be input dry contact, when it connects 1:N. In case of 1:N connection, only one must be set up as an input.

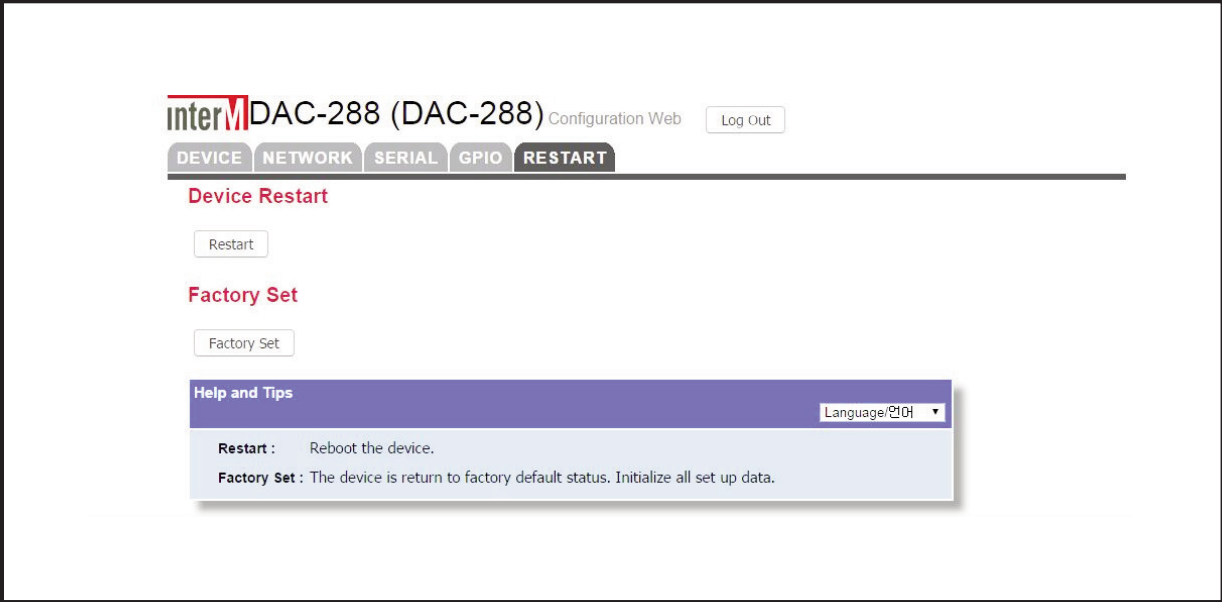
IP Address Set up IP address for dry transmit connection.
Single Output: Set up IP address for device itself.(169.254.42.91)
:
Single Input: Set up device IP address that need to be connected.
Multi Output: Set up multicast IP address (239.0.0.0 ~ 239.255.255.255).
Multi Input: Set up multicast IP address (239.0.0.0 ~ 239.255.255.255).

IP Port : It's a network port number on dry contact connection. Default value is 6464.

Item	Contents	Default Value
ON/OFF	Determines whether to transmit the contact data.	OFF
Baud Rate	Set baud rate required for serial communication	9600
Mode	<p>Determines how to transmit contact data</p> <p>Audio synchronization: Equipment is synchronized with the receive channel. Once a connection is established, the routing voice receive channel is connected to the junction.</p> <p>Contact signal transmission by connecting two or more devices.</p> <p>1:1 Used as a dry contact output when connected.</p> <p>Single Input: 1:1 Used as a dry contact input when connected.</p> <p>Multi Output: 1:N Used as a dry contact output when connected.</p> <p>Output is possible to multiple (N) equipment.</p> <p>Multi Input: 1:N Used as a contact input when connected.</p> <p>Input is only possible for One(1) equipment.</p>	
IP Address	<p>Set IP address when transmitting dry contact data.</p> <p>Single Output: Set the Primary IP.</p> <p>Single Input: Set the Primary IP.</p> <p>Multi Output: IP address of the Group to join (224.0.0.0~239.255.255.255)</p> <p>Multi input: IP address of the group to join (224.0.0.0~239.255.255.255)</p>	
IP Port	Set the basic port when transmitting dry contact data.	6464
Default / Set	<p>Default: Back to original default mode and no changes have been made.</p> <p>Set: All settings have been updated/saved. When applied, system will reboot and requires about 30 seconds to start and apply new settings.</p>	

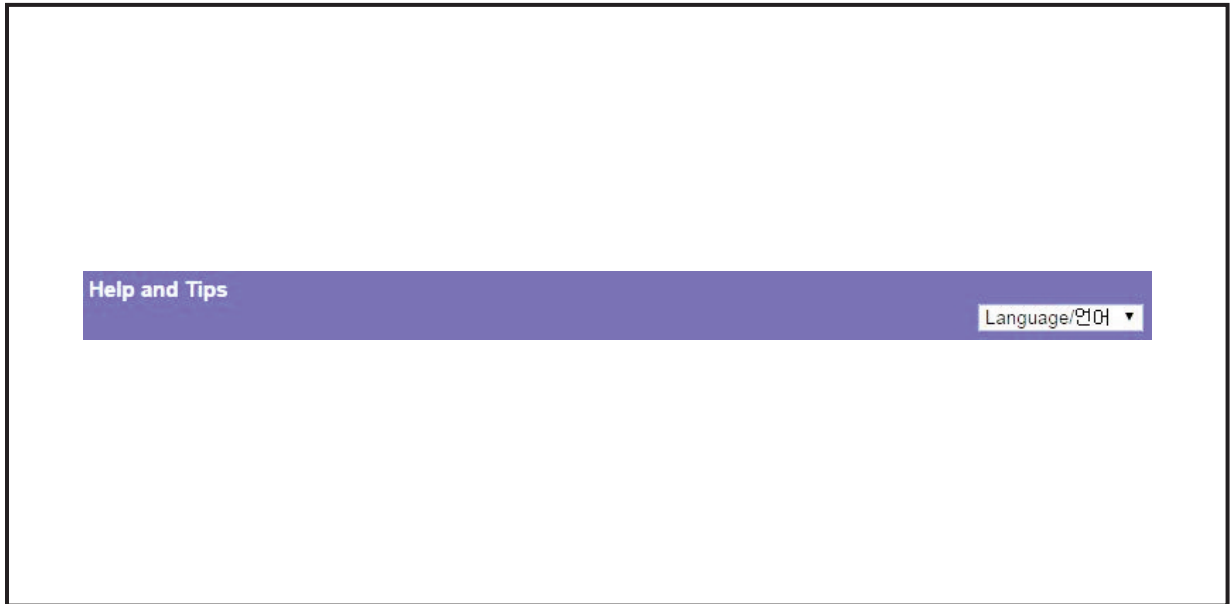
6. Restart, RESTART TAB

6.1 Setting can be set to original Factory Default mode settings.



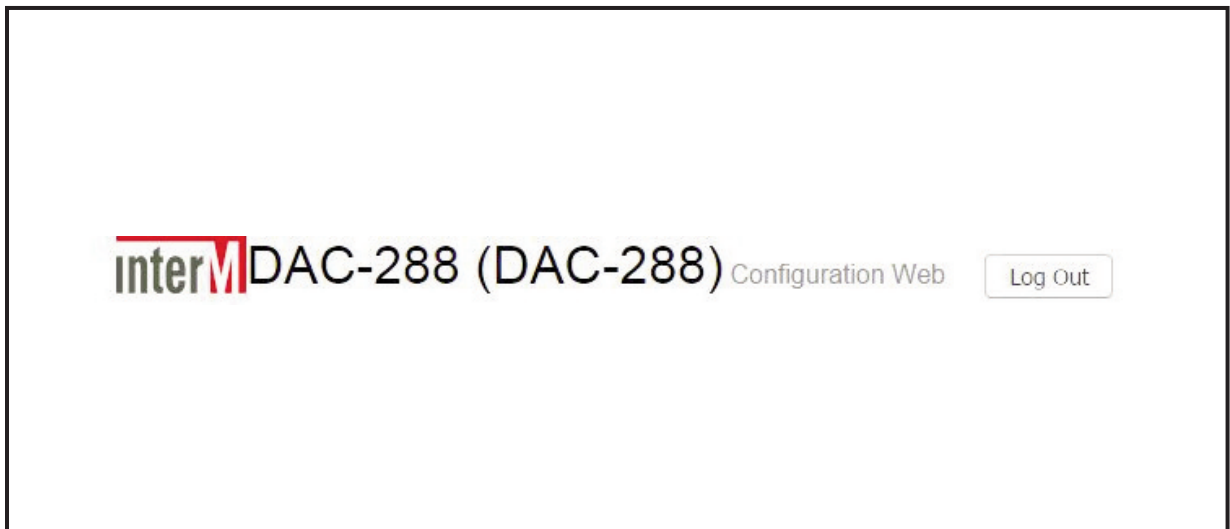
7. Language setting

7.1 To change the language of web browsing interface, select the desired language from the dropdown menu "Language/언어" in the "Help and Tip" section.



8. Log out

8.1 The user can log out anytime by clicking the "Log out" button located on top-right corner.



interM



Inter-M, Ltd. (Korea) began operations in 1983.

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