



SubConnect

Subwoofer Control Application



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SubConnect Application

About the Application

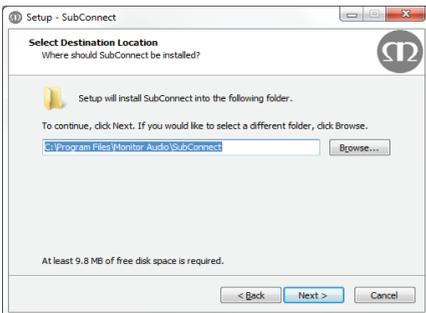
The SubConnect application has been developed to enable the user to create the best sound regardless of room constraints. This application has an abundance of features and adjustments it just wouldn't be possible to have them all on the sub woofer itself.

Installation

You can download our SubConnect application from our website (www.monitoraudio.com). Please then refer to the installation instructions below for Windows.

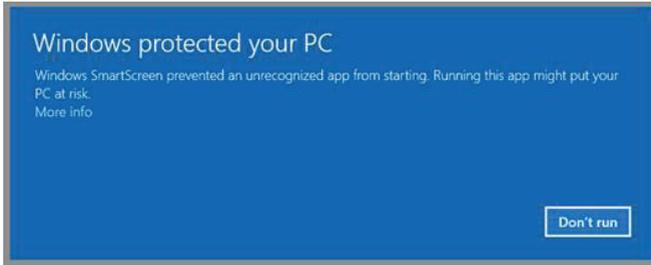
1. Unpack the zipped folder using your computer's designated application and run the file 'setup.exe', this will open up the SubConnect Setup Wizard. Press Next, accept the license agreement and then set your installation location, and follow the on screen instructions.

2. When prompted click install and wait for the progress bar to reach 100%, upon completion simply click Finish. If you wish to launch the application upon closing this window leave the box ticked, if not you will now be able to find SubConnect amongst your computer's applications.





You may find (if running windows 10) you will be greeted by the following message prior to the installation beginning. If you are, follow the additional instructions below:



1. Click on 'More info' to be able to run this programme anyway.



2. Then it warns you again.



3. Additionally, if you do not have C++ or Java, you will also be prompted and need to install them;



Selecting your Subwoofer

With the SubConnect application now installed on your PC you are ready to start the setup procedure. Before launching the application first ensure your subwoofer is connected to your PC using an appropriate USB cable and switched on. When you turn the sub on, it will automatically download the drivers on to the computer.

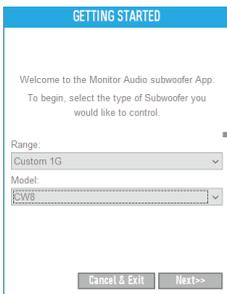
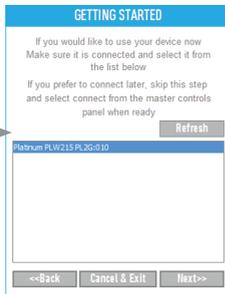
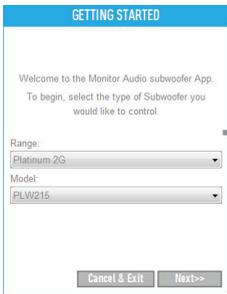
NOTE

If your subwoofer is not seen in the SubConnect application then check that the sub is powered on by pressing the top control dial. The subwoofer will not be detectable if in standby. You may also need to reconnect to establish a connection with your PC. Ensure drivers on your machine are kept up to date.

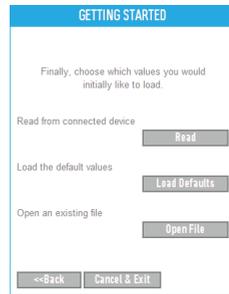
1. Launch the SubConnect application.



2. When running it for the first time, the wizard will automatically start. Select your subwoofer in the "Range" drop down list and the appropriate model under "Model", as seen below. Press the Next button and you will see your product in the list. Select it and press the Next button again.



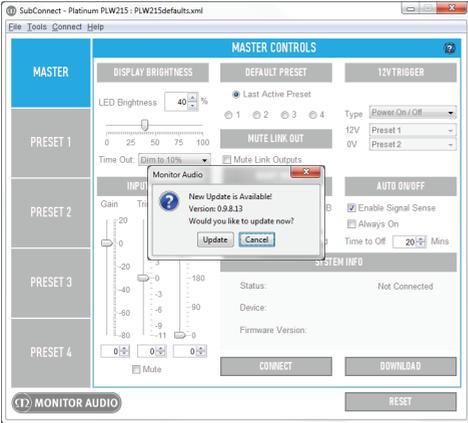
3. Now you will have three options to choose from. You can either start the SubConnect App with your sub's current settings by clicking on the "Read" button; load the default values we have set for the application by selecting "load defaults", or open a pre-saved setting. If you're setting up the sub woofer for the first time we would recommend the default values as a good platform to work from. These will be the same settings that the subwoofer uses as default out of the box.



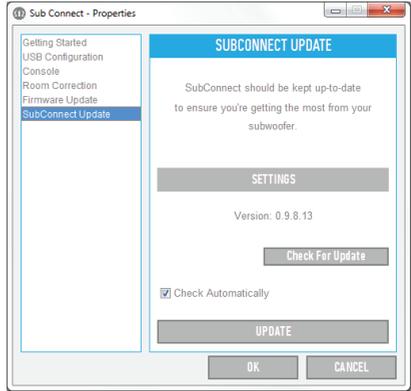
Every time you subsequently run the SubConnect program, it will start up without going through the wizard and will show the "Master Controls" page.

Update Subconnect

Every time the SubConnect application is started, it checks for an update. If it finds one you will be notified as per the image below. Click on update and follow the installation instructions on screen.



3. Click Check for update.

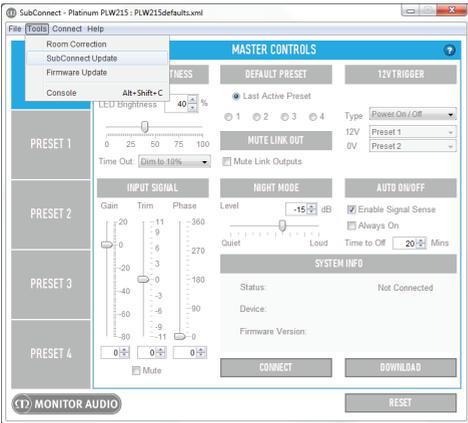


4. If there is no update available, you will be notified accordingly.

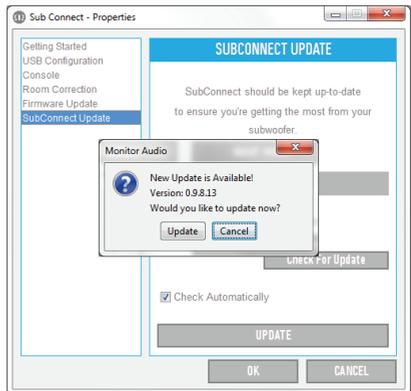


If you wish to check manually, you can do so by following the steps below.

1. Start the SubConnect application.
2. Click on Tools > SubConnect Update



5. If there is an update available, you will be notified and then follow the onscreen instructions.

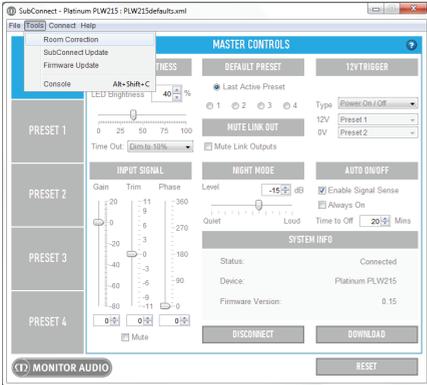


PLW215 II

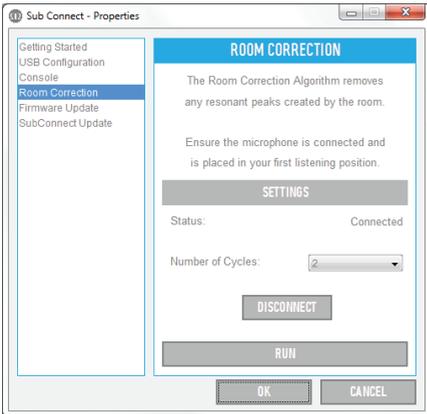
Using SubConnect for Room Correction

To run the room correction on the SubConnect application, follow the steps below.

1. With the PLW215 II on and connected to the PC by USB cable, open the SubConnect app on your PC and click on Tools > Room Correction



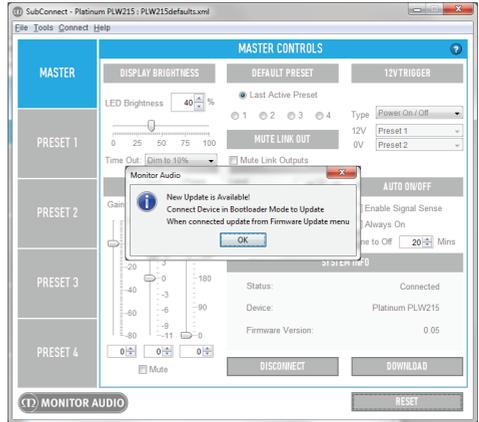
2. Select the number of cycles you wish to run (default is 2) and then click on the RUN button. The sweeps will start as soon as the RUN button is pressed. There will be a pause of around 20 seconds between sweeps.



The PLW215 II will then run through the room correction by playing a number of test tones. If the test has been successful, the LEDs will illuminate in a "happy face" arrangement. If it fails then it will be a "sad face" arrangement.

Update PLW215 II Firmware

Once the SubConnect app has loaded and established connection with the sub woofer, either by automatic detection or by you manually pressing CONNECT, it will always check for a firmware update. If it finds one, you will see the below image.



Bootloader Mode

To get the PLW215 II into bootloader mode, you must first turn the sub woofer off by the mains switch. When it has shut down, press and hold the control dial while simultaneously turning the sub woofer back on.

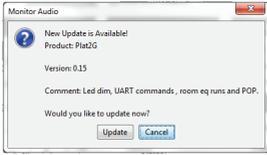
The Inner blue and cyan LEDs will illuminate with the outer white LEDs flashing in a chase sequence finishing at "Phase" (as per illustration below). This is now in bootloader mode.



Now click on OK on the application. The "Status" will show that it is disconnected. Click on CONNECT and then when reconnected, the pop up showing there is an update available will reappear. Proceed to Automatic Update.

Automatic Update.

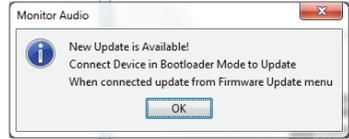
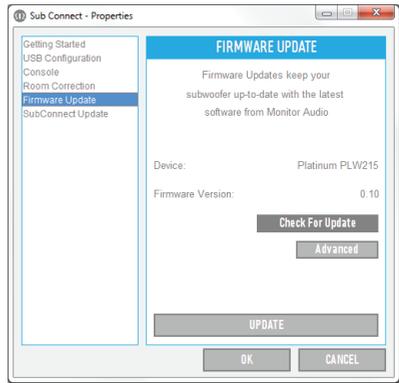
1. To carry out the update, click on OK. You will then see another pop up showing the product, version number and a brief summary of the changes.



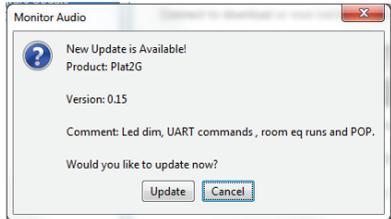
2. Click on Update and you will then see a progress bar showing the status of the update.



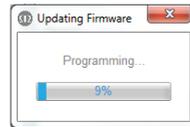
3. When it is complete you will get confirmation and the sub woofer will reboot (when you click on OK). If there is a signal going into the sub woofer, it will automatically start up. If there is no signal, the sub woofer will need to be woken up by applying a signal or by pressing or turning the Control Dial.



2. If it's not already, you will receive a prompt asking for the PLW215 II to be put into Bootloader mode. For information on how to do this refer to page 5. Follow these steps and when you have re-established connection to the PLW215 II click on Tools > Firmware Update again and you will see a new prompt. Click on Update.



3. A progress bar will now be displayed showing the status of the update.

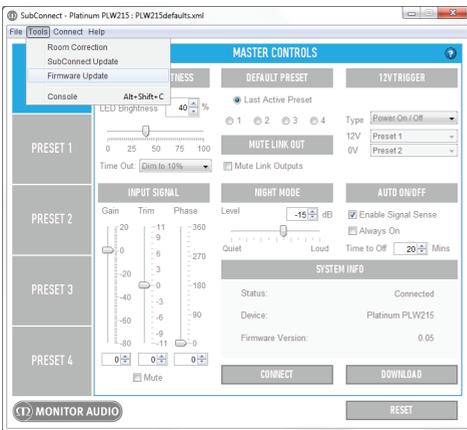


4. When it is complete you will receive confirmation and the sub woofer will reboot (when you click on OK). If there is a signal going into the sub woofer, it will automatically start up. If there is no signal, the sub woofer will need to be woken up.



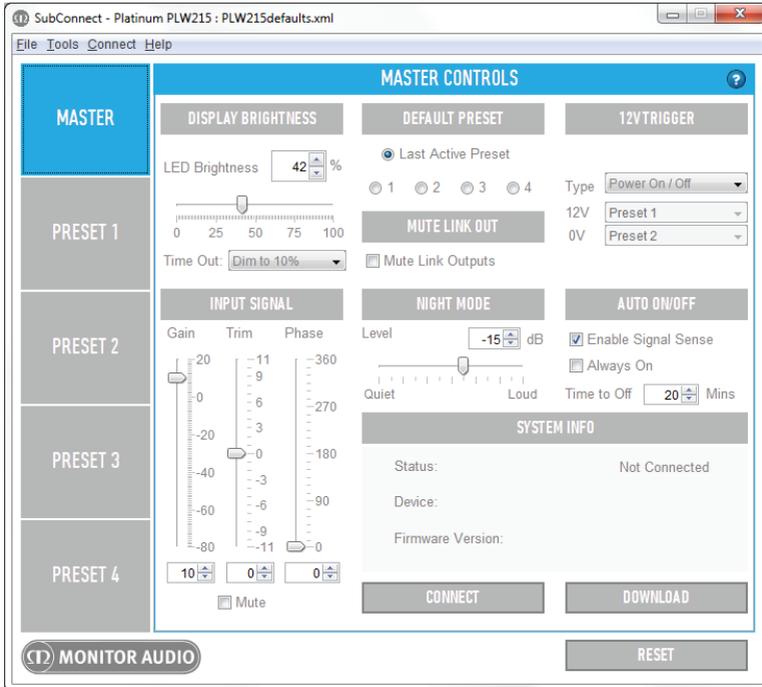
Manual Update

If the automatic update doesn't work, or you wish to manually check for an update, open the app and with the PLW215 II on and connected, click on Tools > Firmware Update.



1. Click check for update. If the PLW215 II is up to date, you will be informed, likewise, if there is an update available for it you will also be informed.

Master Controls



The SubConnect application will enable you to control and adjust every part of the sub woofer you could imagine and more. Below are the descriptions of each feature and what they will do. The default settings are those we recommend setting the AV receiver up with. You can then adjust/ tweak them once the AVR's set up has been run.

NOTES

Save any changes before clicking on "CONNECT" or they will be lost and over written by the settings read from the PLW215 II.

Any changes made within the application will need to be downloaded to the PLW215 II before their effect can be heard.

The Master Controls are the same for every preset.

DISPLAY BRIGHTNESS

Here you can adjust the brightness of the PLW215 II LEDs. It can be adjusted using the slider: hovering the cursor over it and scrolling up and down using the wheel on the mouse or clicking on the up and down arrows. It is also possible to set the LEDs to dim (down to 10% brightness) or off completely following 2 minutes of inactivity.

DEFAULT PRESET

Choose whether to start the PLW215 II on a particular EQ preset or the preset active when the PLW15 was last turned off.

MUTE LINK OUT

If you are not daisy-chaining sub woofers together or linking from the stereo inputs to a power amp (for example) you can choose to mute the link outputs.

12V TRIGGER

The 12V trigger input can be used in 2 different ways: to simply turn the sub woofer on and off, or to use it to select different presets when it is high or low. This feature is ideal when connecting the PLW215 II to a stereo amplifier and an AV Receiver at the same time. You can have one preset for the stereo amplifier and one for the AV receiver. Whichever amplifier has the 12V trigger connected to the PLW215 II (normally the AV Receiver) set the preset you want to enable, to be the "12V" option. The "0V" option should be selected for the amplifier without the trigger.

When using it in "Preset X/Y" mode, the PLW215 II will turn on and off when it senses a signal and will automatically select the appropriate preset.

The PLW215 II is clever enough to know if there is a 12V trigger connected or not. When there isn't one connected, this feature is redundant and the PLW215 II will rely on the Auto on/off settings.

If using a multi-input set up, we recommend using the 12V trigger or RS232 connection to select the presets. The PLW215 II will still turn on using the auto on/ off.

INPUT SIGNAL

There are three parameters to be adjusted here: Gain, Trim and Phase. They can all be adjusted using the sliders, using the scroll wheel on the mouse, clicking on the up and down buttons or manually inputting the desired figure. The output can be muted in this section as well.

Gain is the master output level control. This can only be set in this application. We recommend leaving it set at zero and fine tuning the level using the Trim control. If this doesn't offer enough control, adjust the gain accordingly and fine tune it again with the trim control.

Trim is used to fine tune the output level of the PLW215 II. This is adjusted both on the application and on the product itself. The level it is set to will be displayed by the LEDs around the control dial on the top of the sub woofer.

Phase is used to synchronise any delay between the PLW215 II and main speakers. When the sub woofer is in phase with the main speakers the sound should be full bodied. Sit in a normal listening position whilst adjusting the phase settings. When set correctly the location of the sub woofer should be almost undetectable. Experimentation is advisable, however it should be noted that in most cases the phase control should be set to 0 degrees, especially when using a digital AV processor or AV receiver amplifier. The phase can also be adjusted on the PLW215 II itself.

NIGHT MODE

Night mode is a feature that reduces the peaks on the bass output by reducing the overall level but not the extension of the sub. You are able to adjust the amount of attenuation that is added when night mode is enabled by adjusting the slider. Night mode is enabled or disabled in the preset panels..

AUTO ON/ OFF

Enable signal sensing if a 12V trigger is not being used or the 12V trigger is being used to toggle between presets. If a 12V trigger is connected and it is set to turn the PLW215 II on and off, it will know there is one connected and will not wake on signal sensing. It will wait for the 12V trigger to go high.

The Auto Off time can be set manually to anything between 5 to 240 minutes. The arrows adjust the auto off time in 5 minute steps.

SYSTEM INFO

Here the PLW215 II information is displayed. The Status (connected, not connected or Boot Loader mode), the device (model name) and firmware version will all be displayed in this window.

CONNECT

Connect to the PLW215 II. You will be asked if you wish to read the settings from the PLW215 II or not. If you do read the settings from the sub woofer, any changes made within the app prior to reading the data will be lost.

NOTE

If you make changes to the settings on the application and then read the data from the PLW215 II before saving the changes, they will be lost.

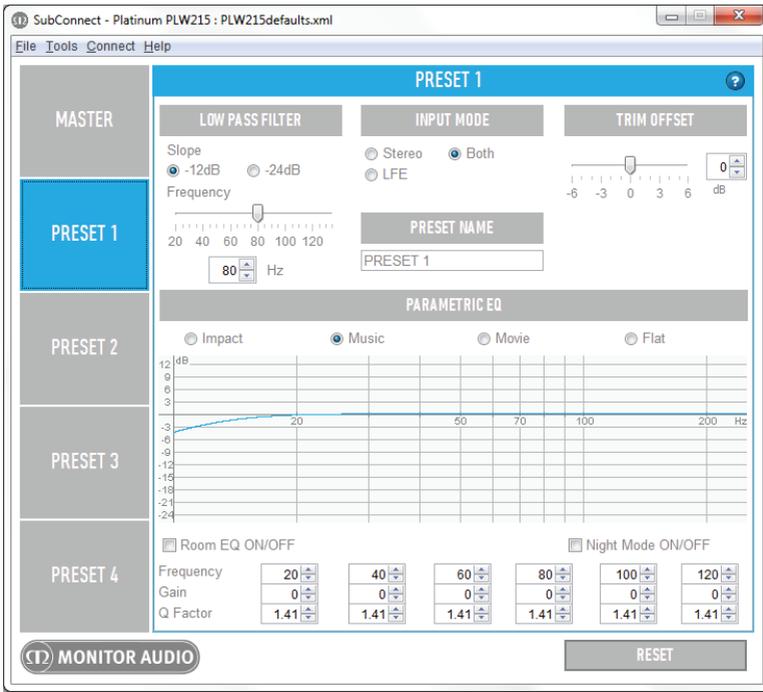
DOWNLOAD

Download the parameters from the application to the PLW215 II

RESET

Reset ALL parameters to the default settings.

Presets



The PLW215 II has 4 separate presets. These can all be set up for different situations. The presets can be selected by either the control panel on the sub, remote control, RS232 control or two can be selected to toggle between depending on the 12V trigger connection and settings.

LOW PASS FILTER

Here the cut off frequency and crossover slope is set. A ported loudspeaker naturally has a low frequency roll off of 24dB per octave, whereas a sealed loudspeaker has a 12dB per octave roll off. For best integration, set the roll off of the sub to match that of your speakers.

The actual frequency can also be adjusted in accordance with the main speakers. This can also be set on the control dial as well. When using the LFE input the low pass filter is not active as this is set by the AVR.

INPUT MODE

Select the input that is active on this preset. If selecting only LFE for example, only a LFE signal will be output. This helps to eliminate any potential interference from other connected devices.

PRESET NAME

The name of the preset can be customised for ease of use.

TRIM OFFSET

This can be customised for each preset in addition to the master gain and trim.

PARAMETRIC EQ

Here you are able to select the type of equalisation you want for the particular preset. There are 4 factory default modes each with its own characteristics. Alternatively, it is possible to customise them to suit your tastes. This customisation is in addition to the factory loaded EQ profile. We would recommend using 'Flat' as a starting point for your own custom EQ. Alternatively, you may want to start with your preferred default EQ and make adjustments to compensate for the response of your listening room. The customisation can only be done using the up and down arrows. You can toggle the Room Correction (see page 9) and Night Mode on and off.

Frequency: chose the frequency that you wish to adjust.

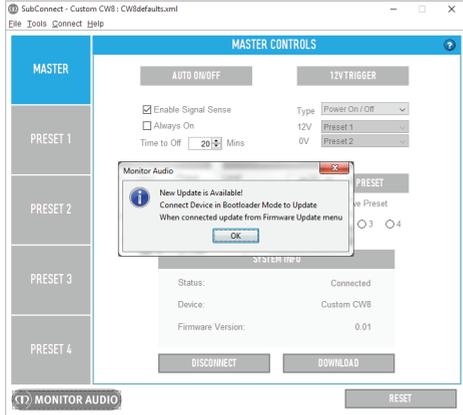
Gain: adjust the gain or attenuation of the selected frequency.

Q-Factor: adjusts the bandwidth relative to its centre frequency (set above)

CW8 & CW10

Update Firmware on CW8 & CW10

Once the SubConnect app has loaded and established connection with the subwoofer, either by automatic detection or by you manually pressing CONNECT, it will always check for a firmware update. If it finds one, you will see the below image.



Automatic Update.

1. To carry out the update, click on OK. You will then see another pop up showing the product, version number and a brief summary of the changes.



2. Click on Update and you will then see a progress bar showing the status of the update.



3. When it is complete you will get confirmation and the subwoofer will reboot (when you click on OK). If there is a signal going into the subwoofer, it will automatically start up. If there is no signal, the subwoofer will need to be woken up by applying a signal or by pressing the Preset button.



Bootloader Mode

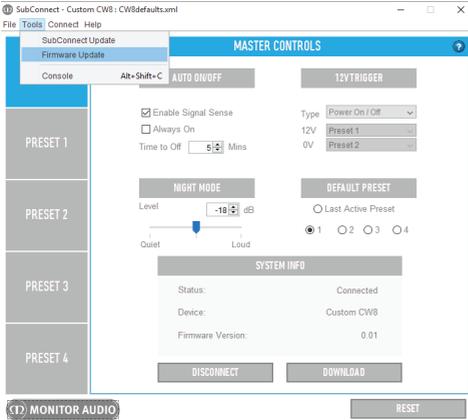
To get the Subwoofer into bootloader mode, you must first turn the subwoofer off by the mains switch. When it has shut down, (LED on the rear has gone off) press and hold the PRESET button while simultaneously turning the subwoofer back on.

All 4 preset LED's will be illuminated when it is in Bootloader mode.

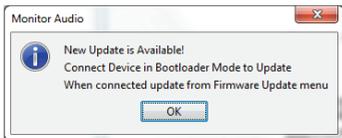
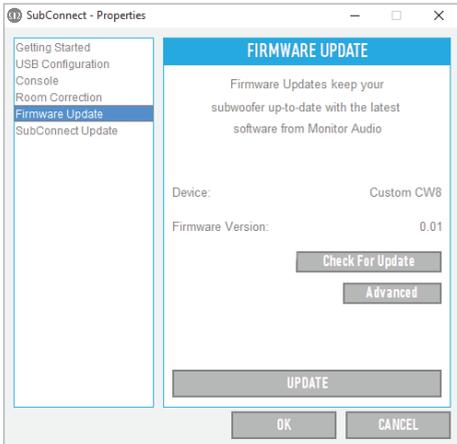
Now click on OK on the application. The "Status" will show that it is disconnected. Click on CONNECT and then when reconnected, the pop up showing there is an update available will reappear. Proceed to Automatic Update.

Manual Update

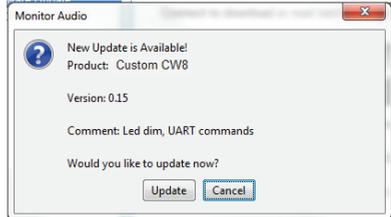
If the automatic update doesn't work, or you wish to manually check for an update, open the app and with the Subwoofer on and connected, click on Tools > Firmware Update.



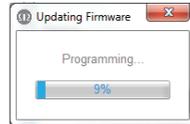
1. Click check for update. If the Subwoofer is up to date, you will be informed, likewise, if there is an update available for it you will also be informed.



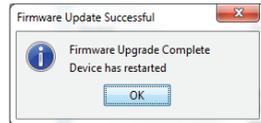
2. If it isn't already, you will receive a prompt asking for the Subwoofer to be put into Bootloader mode. For information on how to do this refer to previous section. Follow these steps and when you have re-established connection to the Subwoofer click on Tools > Firmware Update again and you will see a new prompt. Click on Update.



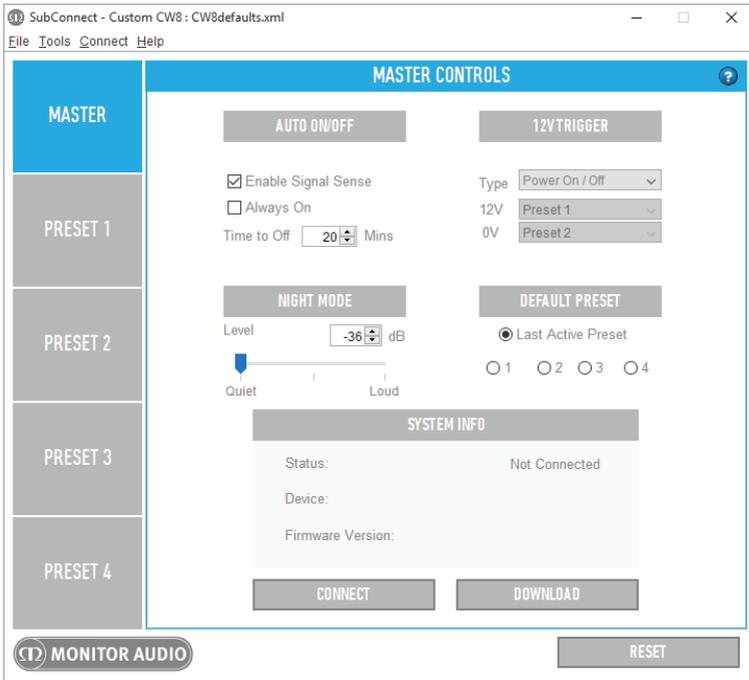
3. A progress bar will now be displayed showing the status of the update.



4. When it is complete you will receive confirmation and the subwoofer will reboot (when you click on OK). If there is a signal going into the subwoofer, it will automatically start up. If there is no signal, the subwoofer will need to be woken up by pressing the Preset button.



Master Controls



The SubConnect application will enable you to control and adjust every part of the sub woofer you could imagine and more. Below are the descriptions of each feature and what they will do. The default settings are those we recommend setting the AV receiver up with. You can then adjust/ tweak them once the AVR's set up has been run.

NOTES

Save any changes before clicking on "CONNECT" or they will be lost and over written by the settings read from the Subwoofer.

Any changes made within the application will need to be downloaded to the subwoofer before their effect can be heard.

The Master Controls are the same for every preset.

AUTO ON/ OFF

Enables signal sensing if a 12V trigger is not being used or the 12V trigger is being used to toggle between presets. If a 12V trigger is connected and it is set to turn the subwoofer on and off, it will know there is one connected and will not wake on signal sensing. It will wait for the 12V trigger to go high.

The Auto Off time can be set manually to anything between 5 to 240 minutes. The arrows adjust the auto off time in 5 minute steps.

12V TRIGGER

The 12V trigger input can be used in 2 different ways: to simply turn the sub woofer on and off, or to use it to select different presets when it is high or low. This feature is ideal when connecting the subwoofer to a stereo amplifier and an AV Receiver at the same time. You can have one preset for the stereo amplifier and one for the AV receiver. Whichever amplifier has the 12V trigger connected to the subwoofer (normally the AV Receiver) set the preset you want to enable, to be the "12V" option. The "0V" option should be selected for the amplifier without the trigger.

When using it in "Preset X/Y" mode, the subwoofer will turn on and off when it senses a signal and will automatically select the appropriate preset.

The subwoofer knows if there is a 12V trigger connected or not. When there isn't one connected, this feature is redundant and the subwoofer will rely on the Auto on/off settings.

If using a multi-input set up, we recommend using the 12V trigger or RS232 connection (refer to the Custom Subwoofer instruction manual) to select the presets. The subwoofer will still turn on using the auto on/ off.

NIGHT MODE

Night mode is a feature that reduces the peaks on the bass output by reducing the overall level but not the extension of the sub. You are able to adjust the amount of attenuation that is added when night mode is enabled by adjusting the slider. Night mode is enabled or disabled in the preset panels.

DEFAULT PRESET

Choose whether to start the subwoofer on a particular EQ preset or the preset active when it was last turned off.

SYSTEM INFO

Here the subwoofer information is displayed. The Status (connected, not connected or Boot Loader mode), the device (model name) and firmware version will all be displayed in this window.

CONNECT

Connect to the Subwoofer. You will be asked if you wish to read the settings from the Subwoofer or not. If you do read the settings from the sub woofer, any changes made within the app prior to reading the data will be lost.

NOTE

If you make changes to the settings on the application and then read the data from the Subwoofer before saving the changes, they will be lost.

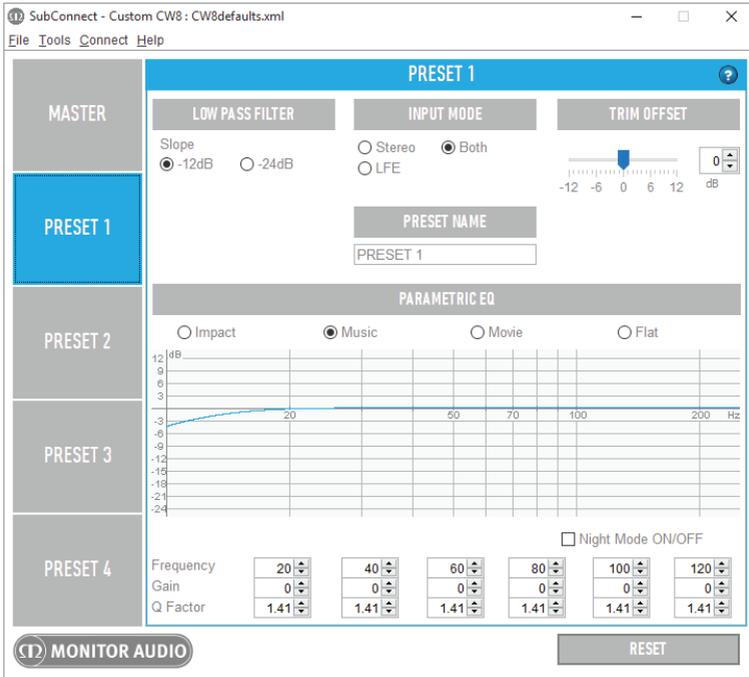
DOWNLOAD

Download the parameters from the application to the subwoofer.

RESET

Reset ALL parameters to the default settings.

Presets



The subwoofer has 4 separate presets. These can all be set up for different situations. The presets can be selected by either cycling through them by pressing the button on the amp panel, RS232 control or two can be selected to toggle between depending on the 12V trigger connection and settings.

LOW PASS FILTER

Here the cut off crossover slope is set. A ported loudspeaker naturally has a low frequency roll off of 24dB per octave, whereas a sealed loudspeaker has a 12dB per octave roll off. For best integration, set the roll off of the sub to match that of your speakers.

The actual frequency can also be adjusted in accordance with the main speakers but this must be done on the subwoofer itself, not via the SubConnect application. When using either of the LFE inputs the low pass filter is not active as this is set by the AVR.

INPUT MODE

Select the input that is active on this preset. If selecting only LFE for example, only a LFE signal will be output. This helps to eliminate any potential interference from other connected devices.

PRESET NAME

The name of the preset can be customised for ease of use.

TRIM OFFSET

This can be customised for each preset in addition to the master gain (volume control) on the sub woofer itself.

PARAMETRIC EQ

Here you are able to select the type of equalisation you want for the particular preset. There are 4 factory default modes each with its own characteristics. Alternatively, it is possible to customise them to suit your tastes. This customisation is in addition to the factory loaded EQ profile. We would recommend using 'Flat' as a starting point for your own custom EQ. Alternatively, you may want to start with your preferred default EQ and make adjustments to compensate for the response of your listening room. The customisation can only be done using the up and down arrows. You can toggle the Night Mode on and off.

Frequency: chose the frequency that you wish to adjust.

Gain: adjust the gain or attenuation of the selected frequency.

Q-Factor: adjusts the bandwidth relative to its centre frequency (set above).

SubConnect Specifications

SubConnect	Windows (7 onwards, 32/64bit) compatible setup application available from the Monitor Audio website and the USB stick Allows the user to control advanced sub woofer setup features. Settings can be saved while not connected to the sub woofer for off sight setup.
Global Settings	Display Brightness (0-100%), Dim (to 50% or to Off), Default Preset, Mute Link Outputs, 12V Trigger Assignment (Power on/off or Preset select), Input gain (Master -80 to +20dB, Trim -6 to +6dB, Mute), Phase (0-360 in 15 degree steps), Night Mode Threshold (-2dB to -20dB), Auto On / OFF (Enable Signal Sense, Always On, Time to off 5-240mins)
User Presets	4 fully configurable user Presets including, Preset Name, LPF Frequency (5Hz Steps from 20-135Hz), LPF Slope Order (-12 or -24dB/Oct), Input (Stereo, LFE or Both), Trim Offset (-6 to +6dB), EQ mode (Impact, Music, Movie or Default), User EQ (6 adjustable filters applied on top of EQ mode), Room EQ (On/OFF), Night Mode (On/OFF)
User Equalisation	6 fully controllable EQ filters and 6 default filters with gain offset per preset. Default settings: Flat / Music / Movie / Impact
Night Mode	Night mode, assignable (on or off) per Preset with global threshold (-2dB to -20dB). Introduces dynamic range reduction lowering the level of loud sections.



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